Author Index for Volume 82, 1999[1]

A

Aasland, D., 712
Abe, M., 320
Abraham, A., 870
Adbelgadir, I.E.O., 343
Aeschlimann, J. M., 863
Ahlfors, K., 205
Ahmadzadeh, A., 1731
Ahn, J., 2327
Akers, R. M., 1731
Alary, S., 1004
Al-Katanani, Y., 2611
Allen, J. C., 257
Allen, M. S., 1282, 135, 589, 2826
Alonso, L., 878
Alvarez, S., 1108
Alvarez, V. B., 1061
Ambrose, J. D., 2369
Anand, G. R., 2146
Andersen, M. H., 2543
Anderson, G. B., 516
Arakuni, M., 2525
Arav, A., 2358
Arieli, A., 566, 1252
Armentano, L. E., 581, 1170, 2716
Arranz, J., 2514
Asai, K., 1459
Asanuma, N., 780
Ashwell, M. S., 2497
Aslam, M., 939
Atanassova, S., 2344
Auldist, M.J., 172
Aydin, G., 2127

B

Bach, A., 153
Backwell, F.R.C., 362
Baer, R. J., 1416
Baevre, L., 420
Bagg, R., 272, 2377, 333
Bailey, T. L., 918, 1731
Bani, P., 967
Banks, J. M., 1618
Bannink, A., 1008
Banos, G., 1331
Barbano, D. M., 661, 1512, 2274
Bareille, N., 2443
Barfield, R., 1179
Barkema, H. W., 80, 1643, 1655
Barnum, D. A., 2393
Barrón, L.J.R., 885
Bas, P., 738, 747
Bateman, H. G., II, 2115
Bates, D. B., 2642
Batra, T. R., 2642
Bauman, D. E., 60, 161, 1512, 2564, 2737
Bauman, L. M., 756, 764, 771
Beal, C., 673
Beatty, J. F., 2697
Beauchemin, K. A., 378, 391, 2121
Beever, J. E., S221
Beghelli, D., 623
Beiboer, M. L., 1643
Beitz, D. C., 1118, 1128, 1153, 1139, 2797
Bélanger, G., 1081
Belem, M.A.F., 486
Belo, A. T., 618
Belyea, R. L., 618, 2115
Belyea, R., 1538, 1943
Benedictus, G., 1643, 1655
Benno, Y., 520
Bequette, B. J., 362
Berger, C., 1072
Berghmans, S., S221
Berglund, L., 2543
Bernabucci, U., 967
Bernard, J. K., 1296, 1305
Bertics, S. J., 2731
Bertilsson, J., 305
Bertrand, J. A., 1532
Beynen, A. C., 1317, 1824
Binelli, M., 1917, 2369
Birkelo, C. P., 574
Black, J. R., 2412
Blais, S., 2574
Blake, R. W., 2136, 2218
Blouin, D. C., 2697
Blum, J. W., 1991
Bobe, G., 2797
Bøe, K. E., 810
Boettcher, P., 1848
Boettcher, P. J., 1034
Bogacz, V. L., 939, 1690
Boichard, D., 2198
BonDurant, R. H., 101
Bondurant, R. H., 1999
Boor, K. J., 32, 2094
Bor, A., 2358
Bouchard, L., 2574
Bouchet, B., 2056
Boucqué, C. V., 110
Bouldin, D. R., 2164
Bowland, E. L., 1851
Boyd, L. C., 2550
Boza, J., 555
Boza, J. J., 555
Brand, A., 1643, 1655
Brandsma, R. L., 2063
Brant, M. H., S122
Brehm, N. M., 756, 764, 771
Bremmer, D. R., 1440
Broadbent, J. R., 2070
Broderick, G. A., 2472, 2686
Bronzo, V., 2101
Brotherstone, S., 632
Brouk, M. J., 574, 1779
Brousse, M., 1072
Brown, T. F., 2697
Bruckental, I., 1252
Bruckmaier, R. M., 1991
Bruhn, C. M., 2224
Bryant, A. M., 172, 1795
Buchan, V., 362
Buckmaster, D. R., 2826
Burton, L. J., 910
Burvenich, C., 1465, 1671
Busboom, J. R., S243
Bustamante, M. A., 885
Butler, S. P., 918
Byatt, J. C., 1465

C

Cai, Y., 520, 2466
Calder, A. G., 362
Calhoun, M. C, 1240, 1296
Campbell, M. H., 1019
Cappio-Borlino, A., 2212
Capuccella, M., 623
Cardoso, V. L., 1449
Carpenter, C. S221
Carriedo, J. A., 639
Casal, V., 1092
Case, K. L., 1664
Casper, D. P., 1779
Casper, J. L., 265
Cassell, B. G., 822
Castillo-Juarez, H., 2218
Casula, A., 2101
Chandan, R. C., 2245
Chandolia, R. K., 2617
Chapa, A. M., 2697
Chauhan, M. S., 918
Chavarri, F., 885
Chaves Lopez, C., 851
Chen, J. H., 690
Chen, R. M., 2308
Cheng, K-J., 537
Chenoweth, P. J., 1240, 2369
Cherney, D.J.R., 2164
Chester-Jones, H., 153
Choi, S. H., 1869
Choi, S. J., 516
Chou, L-S., 23
Chouinard, P. Y., 1512, 2737
Christensen, J. O., 1440
Christiansson, A., 305
Chrystal, M. A., 2017
Cienfuegos-Rivas, E. G., 2218
Clark, D. A., 1795, 1808
Clark, P. W., 581
Clay, J. S., 438
Clayton, E. H., 1545
Clayton, M. K., 2686
Cleary, F., 2039
Coblentz, W. K., 343
Cochran, R. C., 343

[1]Page numbers preceded by S refer to the 1998 Joint Meeting Symposium Issue, *Journal of Dairy Science* Volume 82, Supplement 2.

Cockett, N. E., S221
Coggins, P. C., 1394
Cole, J. B., 795
Collier, R. J., 2564
Collins, J. K., 1379
Combs, D. K., 756, 771
Cone, J. W., 957
Conlin, B. J., 45
Cooper, J. B., 2517
Coppieters, W., 2514
Corcoran, P. E., S163
Corl, C. M., 1696
Corneau, L., 2737
Corrieu, G., 673
Corzo, G., 466, 472
Cox, J. W., 1545
Cramer, L. A., S163
Crompton, L. A., 362
Cue, R. I., 2503
Cuomo, G. J., 2697

D

Dado, R. G., S197
Dahl, G. E., 1716
Daigle, A., 1081
Dall'ara, P., 623
Dann, H. M., 982, 1765
Dartt, B. A., 2412
Davies, D. R., 2651
Davis, S. L., S163
De Antoni, G., 870
De Boever, J. L., 110
De Brabander, D. L., 110
De La Fuente, L. F., 639
De Passillé, A.M.B., 720
de Renobales, M., 885
De Smet, A. M., 110
De Visser, H., 143, 957
de Vries, M. J., 1927, 2589
Dekkers, J.C.M., 1034, 1848
Delgado-Elorduy, A., 1950
Delwiche, M. J., 1999
DeNise, S. K., 788
DePeters, E. J., 1999, 2430
Desrosiers, C., 2574
Dhiman, T. R., 412, 2146
Dick, P., 272, 333, 2377, 2393
Dijkhuizen, A. A., 944
Ding, K., 1890
Dobbelaar, P., 295
Doesburg, K., 2530
Doggett, C. G., 2813
Donnet-Hughes, A., 863
Donovan, G. A., 1684
Döpfer, D., 80
Doreau, M., 974
Dostal, D. F., 527
Douglass, L. W., 1716
Dowlen, H. H., 2049
Drackley, J. K., 2259
Drapier-Beche, N., 2558
Drost, M., 2369
Drouillard, J. S., S136
Druet, T., 2054
Drye, N. C., 2550
Dubeski, P., 2632
Duffield, T. F., 272, 2377
Dufour, E., 2056
Durr, J. W., 2503
Dwyer, D. A., 161, 1512

E

Edge, V. L., 927, 1221
Elizalde, J. C., 1978
Ellersieck, M., 1943
Ellersieck, M. R., 2709
El-Saied, U. M., 639
Emery, R. S., 1282
Endres, M. I., 2746
Eppard, P. J., 1465, 1671
Erasmus, L. J., 1817
Erdman, R. A., 545, 1261, 1716
Erez, B., 1179
Esparza, E., 2430
Everard, M., 2039
Everett, R. W., 2564
Eyestone, W. E., 1731

F

Fanni, J., 2558
Farah, Z., 2084
Farr, V. C., 52
Faulkner, D. B., 1978
Faverdin, P., 2443
Fearn, T., 2344
Fenelon, M. A., 10, 2287
Fernandez, J., 2331
Fernandez, J. M., 2455, 2697
Fernando, R. L., 181
Ferragut, V., 1099
Ferrell, C. L., 597
Fick, J. O., 343
Fife, R. L., 412, 1361
Firkins, J. L., 1497
Fitzgerald, G., 1379
Flores, A. A., 1399, 1408
Flynn, J., 2108, 2625
Foegeding, E. A., 1851
Folman, Y., 2358
Fontecha, J., 878
Foote, R. H., 453, 817, 1742
Fox, D. G., 1968, 2136, 2164
Fox, L. K., 696
Fox, P. F., 891, 1618
Fraga, M. J., 878
France, J., 362
Freeman, A. E., 181, 788, 2797
Freetly, H. C., 597
French, D. D., 2697
Fritz, J. O., 343
Fulkerson, W. J., 2756
Funaba, M., 320, 1960

G

Gaastra, W., 80
Gaiser, M., 2039
Gallant, D. J., 2056
Gardiner, G., 1379
Garman, J., 1351
Garrett, E. F., 1170, 2716
Garrick, D. J., 2514
Garrison, L. L., 1664
Garst, A. S., 1731
Gaya, P., 2300, 2331
Geelen, M.J.H., 500, 1164
Geishauser, T., 1482
Gengler, N., 225, 226, 1350, 1849, 2054
Georges, M., 2514, S221
Gerrish, J., 1538
Gervilla, R., 1099
Gianola, D., 1834
Gianotti, A., 851
Gibbs, B. F., 486, 1612
Gil Extremera, F., 555
Gillespie, B. E., 1581, 2049
Gilliland, S. E., 466, 472
Giorgieri, S., 870
Goff, H. D., 1399, 1408, 1635
Goff, J. P., 315, 1904, 2385
Goh, J-S., 1869
Gomez, M. J., 2300
Gómez, R., 1092
Gómez-Zavaglia, A., 870
Gonzalez, R. N., 1664
Gooden, J. M., 39
Goodger, W. J., 1170
Gorski-Berry, D. M., 2257
Grace, N. D., 429
Grandison, A. S., 682
Grant, R. J., 2127
Graves, R. E., 99
Green, B. L., 333
Green, M. H., 1274
Gresswell, R., S163
Grieger, D. M., 1489
Grimaud, P., 974
Gröhn, Y. T., 288, 1188, 1213, 1664
Grossman, M., 2192
Grummer, R. R., 1440, 2731
Gruvaeus, I., 1310
Guamis, B., 1099
Guard, C. L., 1213
Guerzoni, M. E., 851
Guilleret, J. R., 974
Guinee, T. P., 10, 2287
Gummalla, S., 2070
Gunasekaran, S., 1068, 1890, 2280
Guy, M. A., 611
Gwazdauskas, F. C., 918, 1731

H

Hage, J. J., 944
Hahn, G. L. S10
Haileselassie, S. S., 1612

Halley, B. I., 704
Hansen, A. P., 2550
Hansen, L. B., 795, 2017
Hansen, P. J., 2369, 2611, 2617, S36
Hansen, P. W., 1351, 2005
Hara, T., 1960
Hard, D. L., 1465, 1671
Harp, J. A., 315, 2632
Harper, W. J., 2238
Harrington, D., 10
Harrison, J. H., 2813, J. H., 2826
Hartz, S. M., 2192
Hasler, J. J., 771
Heinrichs, A. J, 99, 1753, 1746
Helmink, E. D., 412
Herbert, S., 2056
Herdt, T. H., 1282
Heringstad, B., 1325, 2811
Hernandez, J., 1684
Hettiarchchy, N., 1882
Heuer, C., 295
Heymann, H., 1425
Hidiroglou, M., 1831
Hill, C., 10, 2108, 2625
Hill, G. M., 2455
Hill, J. P., 172
Hillerton, J. E, 93, 704
Hino, T., 780
Hippen, A. R., 1118, 1128, 1139, 1153
Hiratsuka, M., 1459
Hoeben, D., 1465, 1671
Hoffman, P. C., 756, 764, 771
Hogan, J. S, 86, 939, 1690, 2582
Holden, L. A., 605, 1791, 1935
Holland, J., 2039
Honjo, T., 320
Hopkins, D. I., S122
Horst, R. L., 2632
Hoshino, T., 2078
Hosono, A., 243, 2536
Hotchkiss, J. H., 690
Hough, G., 454
Huang, A. H., 2308
Huber, J. T., 404, 728, 1950, 2352
Huffman, L. M., 2238
Huhtanen, P., 2659, 2674
Huisman, A. E., 2514
Hunshamar, A., 712
Hunt, C., 2813
Hunt, C. W., 611
Hurley, W. L., 1723
Huyler, M. T., 527

I

Ikonen, T., 205, 1026
Ingvartsen, K. L., 1512
Ireland, J. J., 1917
Iriki, T., 320, 1960
Itoh, K., 481, 2344
Itoh, T., 481, 2525
Iwamoto, M., 780
Iwasaki, T., 2530

J

Jackson, S. P., S221
Jairath, L. K., 1034
Jalava, T., 2659
James, T., 2430
Jans, F., 1991
Jayarao, B. M., 2049, 2620
Jenkins, D. M., 1999
Jenkins, T. C., 1525, 1532
Jensen, J., 1045
Jensen, R. G., 2055
Jimenez-Krassel, F., 1917
Johnson, A. B., 2642
Johnson, D. G., 2746
Johnson, D. L., 215
Johnson, E. A., 1860
Johnson, L., 2813
Johnson, L. A., S213
Jones, L. R., S177
Jonker, J. S., 1261
Jonsson, N. N., 2756
Ju, Z. Y., 1882
Juarez Lagunes, F. I., 2136
Juárez, M., 878
Jung, H. G., 153, 2746
Junge, W., 2421

K

Kaal-Lansbergen, L.M.T.E., 1927
Kachman, S. D., S147
Kai, K., 1459
Kakuda, Y., 1635
Kalm, E., 2421
Kalscheur, K. F., 545
Kaneene, J. B., 2412
Kappeler, S., 2084
Karagül-Yüceer, Y., 1394
Kasperson, K. M., 1416
Kassa, T. 2369
Kawai, Y., 481, 2525
Kaylegian, K. E., 1433
Kehrli, Jr., M. E., 315, 2385
Kehrli, M. E., 2393, 2517
Kempe, R., 205
Kendrick, K. W., 1731
Kennelly, J. J., 2486
Kensinger, R. S., 1746, 1753
Keown, J. F., 1574
Kerley, M. S., 2115
Kessler, H. G., 460
Kettunen, A., 2788
Khorasani, G. R., 2486
Kilara, A., 1882
Kim, P-H., 1869
Kimura, K., 315, 2385
Kincaid, R. L., 527
Kindstedt, P. S., 661
Kingston-Smith, A. H., 2651
Kitazawa, H., 481, 2525
Klausner, S. D., 2164
Klemetsdal, G., 1325, 2811
Klop, A., 143
Knight, C. D., 355
Knowles, S. O., 429
Ko, E-J., 1869
Kobayashi, Y., 506, 1910
Koegel, R. G., 2472
Koelsch, R., S63
Koenig, K. M., 355
Köhn, R. A., 545, 1261
Kommisrud, E., 810
Konishi, H., 1877
Konomi, R., 481
Kontula, P., 249
Koops, W. J., 2192
Koxholt, M., 460
Kraus, T. J., 2472
Kriegl, T., 191
Krishnaswamy, N., 1416
Kruip, T.A.M., 280
Kudo, S., 1897
Kuehn, C. S., 2746
Kuhl, G. L., S136
Kuhn, M.T., 181
Kumagai, K., 1459
Kumai, S.C. E, 520
Kumura, H., 2078
Kunkle, W. E., S122
Künzi, N., 2178
Kwak, H. S., 2327
Kyle, C. E., 362

L

Lacasse, P., 2574
Lacetera, N., 967
Lacy-Hulbert, S. J., 1232
Lam, T.J.G.M., 80, 1643, 1655
Lamb, G. C., 1489
Lammers, B. P., 1746, 1753
Lanciotti, R., 851
Landsverk, K., 810
Lanna, D.P.D., 60
Larson, A. E., 1860
Latrille, E., 673
Lawless, H. T., 690
Lawlor, T. J., 1052
Lean, I. J., 39, 1545
Lee, B. H., 486, 1612
Lee, B-J., 1869
Lee, D. K., 2327
Lee, J., 429
Lee, J. H., 649
Lee, S. C., 2308
Lefcourt, A. M., 953, 1179
Leibfried-Rutledge, M. L., 2369
Leslie, K. E., 272, 333, 2377, 2393
Lesoing, G., 63
Lewis, G. E., 611
Lewis, W. D., 1532
Lidauer, M., 2779, 2788
Liesman, J. S., 1282
Liinamo, A. E., 802
Lima-Filho, R. O., 404
Lin, C. Y., 2030
Lin, J., 86

Lin, M-Y., 1629
Lin, S. W., 2023
Lindberg, G. L., 1118, 1128, 1139, 1153, 2797
Linn, J. G., 2746
Lissemore, K. D., 272, 2377
Littell, R. C., 196
Lloret-Pujol, M., 738, 747
Lloyd, J. W., 2412
Loeffler, S. H., 2589
Lohuis, C. T., 1586
Lohuis, M. M., 1586
Longenbach, J. I., 99
Loveridge, N., S190
Lozada, L., 878
Lucy, M C., 1489, 1910
Lumsden, J. H., 272, 2377, 2393
Lund, M. S., 1045
Luo, M. F., 1848
Luzzago, C., 2101
Lynch, C. M., 1618
Lynch, J. M., 1489, 1512
Lynch, P. B., 1379

M

Mabhout, P., 2543
Mabjeesh, S. J., 566
Macciotta, N. P. P., 2212
MacGibbon, A.K.H., 215
Mackle, T. R., 161, 172, 1512
MacRae, J C., 362
Maeno, M., 1388
Maiga, H. A., 1779
Makino, T., 1897
Malcata, F. X., 1595, 2315
Mallard, B. A., 2393
Mandebvu, P., 2455
Mandersloot, F., S84
Mäntysaari, E. A., 2788
Marshall, R. T., 1425, 2115
Martin, F. G., 1240, 2642
Martin, N., 673, 1072
Martin, S. A., 1296, 2011
Martin, S. W., 927, 944, 1221
Martz, F., 1943
Martz, F. A., 618, 1538
Marx, G. D., 795
Matsumura, A., 2525
Matsunaga, M., 320
Mattila-Sandholm, T., 249
Mauries, M.J.C., 2472
McAllister, T. A., 537
McBride, B. W., 272, 333, 2377
McCall, D. G., 1795, 1808
McCormick, M. E., 2697
McCulloch, C. E., 288, 1213
McCullough, P. R., 355
McDowell, L. R., 1240, 2642
McFadden, H. A., 52
McGowan, M. R., 2756
McGrath, M. J., 2039
McMahon, D. J., 412, 1361
McSweeney, P.L.H., 1618
Meaney, W. J., 2625
Medici, M., 1108
Medina, M., 1108, 2300, 2331
Meijer, G.A.L., 280
Mena, H., 2352
Mendes Da Silva, O., 454
Merchen, N. R., 1978
Merry, R. J., 2651
Mertens, D. R., 122, 2826, 2841
Metzger, L. E., 2274
Meuwissen, T.H.E., 1555
Meyer, D., 2430, S51
Mierau, I., 2530
Mikawa, K., 2078
Miller, A.R.E., 1716
Miller, B. L., 1489
Miller, G. B., 39
Miller, J. K., 1019
Mistry, V. V., 1, 2334
Misztal, I., 1052, 1849, 2186, 2805
Miyajima, Y., 1960
Moallem, U., 2358
Molimard, P., 1072
Moll, J., 2178
Monardes, H. G., 2503
Monson, R. L., 2369
Moorby, J. M., 2440
Moore, J. E., S122
Morgante, M., 623
Moribe, K., 2030
Morishita, T., 1897
Mork, T., 712
Moroni, P., 2101
Mowrey, A., 445, 2709
Muck, R. E., 2841
Muehlenkamp-Ulate, M. R., 1370
Muir, D. D., 1618
Muller, A., 1817
Muller, L., 2856
Mullinix, B. G., 2455
Mullinax, D. D., S51
Munksgaard, L., 720
Murata, S., 2078
Muthukumarappan, K., 1068, 2280

N

Nadir, S., 918
Nardone, A., 967
Neaves, P., 704
Nelson, J. H., 1860
Nelson, C. J., S90
Nicholas, G. D., 1232
Nickerson, S. C., 645, 696, 1581
Nielen, M., 944
Nielsen, R. L., 2543
Nielsen, U. S., 1331
Nitschke, M., 1482
Noble, M. S., 1723
Nogueira, J. R., 1449
Nonnecke, B. J., 2632
Nordlund, K. V., 1170
Nørgaard, L., 1351
Norman, H. D., 438, 2205, 2231, 2766
Notter, D. R., 918
Nunez, M., 2300, 2331
Nussio, C., 2352
Nussio, C. B., 404
Nussio, L. G., 404, 728
Nusso, L., 2352

O

Oba, M., 135, 589
Oberg, C. J., 1361
O'Connor, J. F., 2039
Ødegaard, S. A., 712
O'Donnell, J., 2224
Odt, C. L., 122
Oetzel, G. R., 1170, 2716
Ogawa, M., 520
O'Hagan, D., 1817
Ojala, M., 205, 1026
Okamura, Y., 2030
Oldick, B. S., 1497
Oliver, S. P., 1581, 2049
Olofsson, J., 69
Olson, K. C., 343
Oltenacu, P. A., 2218
O'Rear, J., 2127
Orth, M. W., S183
Østerås, O., 927, 1221
Østergaard, S., 1188
Ouweltjes, W., 1927
Owens, W. E., 645, 696, 1581
Ozaki, Y., 2344
Ozer, B. H., 682

P

Pariza, M. W., 412, 2146
Parmentier, M., 2558
Parodi, P. W., 1339
Patton, S., 1115
Pauselli, M., 623
Payne, M., 2224
Pearson, R. E., 822, 1731
Pehrson, B., 1310
Pell, A. N., 2136
Penno, J. W., 1795
Pepper, P. M., 2756
Percival, S. S., 2642
Perdigón, G., 1108
Pereira, M. N., 1170, 2716
Pérez, M. L., 555
Perez-Monti, H., 2430
Pestka, J. J., 649
Petch, S.F., 172
Peters, J. B., 756, 764, 771
Petersen, P. H., 1045
Petersen, T. E., 2543
Petit, H. V., 1004
Petrongolo, R. A., 1586
Phillips, L. G., 32, 2094
Philpot, J. C., 225, 226
Piccinini, R., 2101
Pichard, G., 2651
Pickard, M. D., 537

Picon, A., 2331
Pintado, A. I. E., 2315
Pintado, M. E., 2315
Poduval, V. S., 1
Pohlman, A. L., 191
Pool, M. H., 1555
Pösö, J., 2788
Powell, R. L., 2766
Powers, W. J., S169
Prasad, N., 1061
Prichard, D., 1240
Prindiville, E. A., 1425
Pritchard, G. T., 611
Prosser, C. G., 1232
Pryor, A. W., 918, 1731
Puglieso, M. L., 454
Puhan, Z., 2084, 2402
Pulina, G., 2212
Putnam, D. E.
Putnam, D. E., 982, 1274, 1765

Q

Querengässer, K., 1482

R

Rabiansky, P. A., 2642
Rabiee, A. R, 39
Radke, B. R., 2412
Rajala-Schultz, P. J., 288, 1213
Randby, Å. T., 420
Ranucci, S., 623
Rasmussen, F. E., 1440
Rasmussen, J. T., 2543
Rattray, F. P., 891
Raval, D. M., 2334
Ray, C. H., 645
Rea, M. C., 10
Reed, B., 2224
Reinertsen, E. M., 2617
Reinhardt, T. A., 1904
Reinsch, N., 2421
Reksen, O., 810, 2605
Rens, W., S213
Restrepo, R., 1943
Riaublanc, A., 2056
Richard, D., 974
Richardson, L. F., 1118, 1128, 1139
Ridler, B. J., 1795
Risco, C. A., 1240, 1684
Rizvi, S.S.H., 2063
Robinson, B., 2486
Robinson, R. K., 682
Rochat, F., 863
Rode, L. M., 355, 378, 391, 537, 2121
Rodriguez, E., 2300
Rogers, G. W., 1331, 2517
Rojas, L. X., 1240
Roland, A. M., 32, 2094
Roman, R. M., 196
Romig, S., 1690
Ronchi, B., 967
Ropberge, S., 1707
Ropstad, E., 810, 2605
Rorato, P.R.N., 1574
Roros, A., 712
Rose, M. D., 704
Ross, R. P., 10, 1379, 2108, 2625
Rotz, C. A., 2826, 2841
Rouzeau, A., 738, 747
Rowe, J. B., 1545
Roy, D., 1081
Ruane, J., 1325, 2811
Rudan, M. A., 661
Ruiz, F. J., 2218
Rukkwamsuk, T., 280, 500, 1164
Ruottinen, O., 205, 1026
Rupp, R., 2198
Rushen, J., 720
Russek-Cohen, E., 545
Rutledge, J. J., 2369
Ruvinksy, A. S228
Ryan, M. P., 10, 2108, 2625

S

Sæbø, A., 2737
Saito, T., 481, 2525
Salgado-Madriz, E., 2642
San Primitivo, F., 639
Sanchez, M. S., 494
Sanchez, R., 454
Sanchez, W. K., 611
Sandals, D., 272, 333, 2377
Santisteban, A., 885
Santos, F.A.P., 728
Santos, J., 2352
Santos, J.E.P., 404, 728
Sanz Sampelayo, M. R., 555
Sapienza, D., 2813
Sasaki, O., 2030
Satter, L. D., 2146, 2841
Sauvant D., 738, 747
Savonitto, S., 1072
Scearce, A., 2224
Schaeffer, L. R., 1848
Schallibaum, M., 2402
Scheifinger, C. C., 696
Schiffrin, E. J., 863
Schillo, K. K., S154
Schingoethe, D. J., 574, 996, 1779
Schmidely, P., 738, 747
Schneeberger, E., 2472
Schoenberger, P. S., 1690
Schonewille, J. T., 1317, 1824
Schrick, F. N., 1019
Schukken, Y. H., 80, 295, 944, 2393, 1643, 1655, 2589
Schwager, S. J., 2218
Scipioni, R. L., 1742
Scorneaux, B., 1202
Selmer-Olsen, I., 420
Semmens, J. M., 93
Sendra, E., 1099
Serrant, P., 863
Settar, P., 2170
Seykora, A. J., 45, 795, 2017
Shabi, Z., 1252
Shafer-Weaver, K. A., 1696
Shahar, K., 566
Sharma, B. K., 1282, 1910
Shaver, R. D., 771
Shay, T. L., S221
She, P., 1118, 1128, 1139, 1153
Šebek, L.B.J., 2157
Shim, H., 516
Shimazaki, K., 2078
Shinners, K., 2813
Shiota, M., 1877
Shoukri, M., 944
Shryock, T. R., 696, 1202
Singireddy, S. R., 2514
Sklan, D., 566, 2358
Skokanova, J., 673
Smith, A. K., 1635
Smith, I., 1817
Smith, J. L., 2582
Smith, K. L., 86, 939, 1690, 2582
Smith, L. A., 2205, 2771
Snowder, G. D., S221, S243
Sobiraj, A., 1482
Soder, K. J., 605, 1935
Soliman, I. A., 957
Solkner, J., 2054
Solomon, M. B., S238
Sordillo, L. M., 1696
Spain, J. N., 445, 2115, 2709
Spelman, R. J., 2514
Spike, T. E., 696
Spinnler, H. E., 1072
Spreafico, G., 2101
St. Pierre, N. R., 1497, S72, S177
Stabel, J. R., 1904
Stachurski, L. J., 1795
Stahl, T.J., 45
Stanisiewski, E. P., 1716
Stanton, C., 1379
Staples, C. R., 1240
Stegeman, G. A., 996
Stelwagen, K., 52, 1232
Stenning, R. A., 682
Stephens, K., S163
Stephenson, G., S163
Stern, M. D., 153
Steuernagel, G. R., 45
Stevenson, J. S., 506, 1489
Stock, S208
Strabel, T., 2805
Strandén, I., 2779, 2788
Suihko, M. L., 249
Sullivan, H. M., 2011
Suzzi, G., 851
Svensson, B., 305, 1310
Swaisgood, H. E., 257
Swanson, B. I., 611

T

Tadokoro, K., 481
Tagari, H., 1252
Takano, T., 1388

Tamura, N., 1897
Tanaka, H., 2530
Tarazon, M., 404, 728
Tarazon-Herrera, M., 2352
Tasch, U., 1179
Tate, V., 1538
Tatsumi, K., 1877
Tejada-Simon, M. V., 649
Tempelman, R. J., 1834
Thatcher, M.-J., 2369
Thatcher, W. W., 2369
Theobald, V. J., 2440
Theodorou, M. K., 2651
Theurer, C. B., 404, 728. 1950
Thomas, D. L., 265
Thomas, H., 2651
Thompson, K. E., 506
Thompson, L. M., 1690
Thompson, R., 632, 1565
Thraen, C. S., S72
Tijani, A., 225, 226
Togashi, K., 2030
Toivonen, V., 2674
Toyoda, K., 2344
Treacher, R. J, 611, 996
Trgo, C., 460
Troncoso, D., 2651
Tsenkova, R., 2344
Tucker, H. A., 1910, 1917
Tucker, R. W., 1118, 1128, 1139
Turner, J. E., 343
Tverdal, A., 810, 2605
Tylutki, T. P., 1968

U

Undersander, D. J., 756, 764, 771
Urech, E., 2402
Usman, 243, 2536
Ustunol, Z., 649

V

Valadares Filho, S. C., 2686
Valadares, R.F.D., 2686
Valk, H., 1008, 2157
Van Amburgh, M. E., 1968
van Arendonk, J.A.M., 802, 1449
Van Bebber, J., 2421
Van Brakel, A. S., 1351
van der Beek, S., 1927
Van Der Koelen, C. J., 143
Van Der Ploeg, J. D., 1655
van Gelder, A. H., 957
van Schaik, G., 944
Van Tassell, C. P., 225, 226, 2231, 2497
Van Vleck, L. D., 1574, S111
Van Vuuren, A. M., 143, 957, 1008
Vanacker, J. M., 110
Vandehaar, M. J., 1282, 1910
Vandersall, J. H., 545
Vanhatalo, A., 2659, 2674
Vannini, L., 851
VanRaden, P. M., 438, 2205, 2771
Van't Klooster, A. T., 1317, 1824
Varga, G. A., 982, 1274, 1765
Varner, M. A., 1179
Varona, L., 2186
Varvikko, T., 2659, 2674
Veerkamp, R. F., 1565
Velander, W. H., 918
Velasquez-Pereira, J., 1240, 2642
Vergeron, M. P., 974
Verite, R., 2443
Vessie, G. H., 2393
Vierhout, C. N., 822
Vintiñi, R., 1108
Virkki, M., 1310
Virto, M., 885
Von Wright, A., 249
Vuillemard, J. C., 1081
Vukasinovic, N., 788, 2178

W

Waage, S., 712
Wada, Y., 320, 1960
Waghorn, G. C., 122
Wahl, T. I., S243
Wall, R. J., 817
Walton, J. S., 1707
Wanderley, A., 1950
Wang, L., 2620
Wang, Q., 257
Wang, S. J., 2164
Wang, Y., 537
Wang, Y.-C., 1068, 2280
Wanner, J. M., 2517
Warthesen, J. J., 1370
Waters, W. R., 2632
Watts, J. L., 494
Webb, D. W., 2611
Weigel, K. A., 191, 2023
Weiland, W. L., 2564
Weimer, B., 23
Weimer, P. J., 122
Weiss, M. F., 618
Weiss, W. P., 1690
Welch, G. R., S213
Weller, J. I., 2170
Wendorff, W. L., 265
Wensing, T., 280, 500, 1164
West, J. W., 2455, S21,
White, C. H., 1394
White, I.M.S., 632
Wiggans, G. R., 225, 226, 1350, 1849, 2231
Wilcox, C. J., 196
Wilkie, B. N., 1707
Wilkinson, N. S., 1240, 2642
Williams, R. D., S163
Williams, S. N., 1240
Wilmink, J.B.M., 1927
Wilson, D. J., 1664
Wilson, J. C., 1394
Wiltbank, M. C., 1440
Winkelman, A. M., 215
Woolford, M. W., 1232
Wouterse, H., 1317, 1824
Wright, J. R., 438, 1350, 2205
Wu, H. M., 2308
Wu, J. J., 2308
Wurms, K., 429

X

Xin, H, S1
Xu, Z., 537
Xu, Z. Z., 910
Yamaguchi, T., 1459

Y

Yamamoto, N., 1388
Yamamoto, Y., 2030
Yang, W. Z., 378, 391, 2121
Yen, C-L., 1629
Yoon, I. K., 153
Yoshizawa, T., 2030
Young, J. W., 1118, 1128, 1139, 1153
Yousif, G., 1282
Yun, J. J., 661

Z

Zamwell, S., 566, 1252
Zecconi, A., 2101
Zhao, X., 2574
Zhu, W-Y., 2651
Zom, R.L.G., S84

Subject Index of Papers Published in Volume 82 of the *Journal of Dairy Science*[1]

A

abomasal displacement, reproduction, monensin, ketosis, 2377
abortion, risk factors, dairy cows, clinical mastitis, 1684
absorption, magnesium, potassium, cows, 1824
accuracy, milking machine, dairy cows, milk yield, 953
acetone, Fourier transform infrared spectroscopy, ketosis, multivariate calibration, 2005
acid-base balance, milk fever, grass, acidic diets, 1310
acidic diets, acid-base balance, milk fever, grass, 1310
acidification, viscosity, yogurt, lactic acid bacteria, 673
acid-tolerant isolates, bile-tolerant isolates, probiotic, *Lactobacillus acidophilus*, 23
adaptation, gas production, rumen fermentation, 957
adenosine, adipose lipolysis, glucocortoids, somatotropin, 60
adipophilin, adipocyte differentiation-related protein, butyrophilin, 2543
adipose lipolysis, glucocortoids, somatotropin, adenosine, 60
adipose tissue, dairy cows, overfeeding, esterification, 1164
aerobic deterioration, lactic acid bacteria, silage, 520
aggregration, differential scanning calorimetry, denaturation, whey proteins, 1882
alfalfa, forage quality, digestibility, net energy of lactation, 1943
  grasses, maturity, in situ degradation, 1978
alfalfa silage, allantoin, nonfiber carbohydrates, purine derivatives, 2679
  maceration, 2472
allantoin, nonfiber carbohydrates, purine derivatives, alfalfa silage, 2679
alternative mRNA splicing, lactophorin, proteose-peptone component 3, 2084
amino acids, cows, milk, protein, 161
  dairy cows, bioavailability, methionine, 1991
  exopolysaccharide, peptides, 2315
  milk, protein, insulin, 1512
  protein, dairy cows, 2115
amino acid catabolism, tryptophan, cheese flavor, *Lactobacillus*, 2070
ammonia, dairy cows, milk production, nitrogen balance, 2440
  volatilization, dairy manure, nitrogen, 2430
anaerobic digestion, manures, odors, covers, S169
angiotensin I-converting enzyme, yogurt-like product, *Lactobacillus helveticus*, antihypertensive peptide, 1388
animal breeding, genetics, livestock, S111
  open learning, professional development, 1586
animal husbandry, thermal energy, stress, thermoregulation, S10
animal manures, nitrogen, phosphorus, nutrient balance, S63
animal model, genetic analysis, cow survival, Israeli Holsteins, 2170
  linear type model, final score, genetic evaluation, 1350
animal-selected sampling, nutrient, management-intensive grazing, pasture, 1538
antibiotic, efficacy, mastitis, bovine, 1664
  mastitis, *Staphylococcus aureus*, tilmicosin, 696
antibiotic resistance, risk factors, mastitis, *Staphylococcus aureus*, 927
anticarcinogens, conjugated linoleic acid, butyric acid, milk fat, 1339
antidiuretic hormone, suckling calves, dry feed, water balance, 320
antihypersensitive peptide, enzyme-modified cheese, *Lactobacillus casei*, bioactive peptide, 1612
antihypersensitive properties, bioactive peptides, *Kluyveromyces marxianus*, whey fermentation, 486
antihypertensive peptide, angiotensin I-converting enzyme, yogurt-like product, *Lactobacillus helveticus*, 1388
anti-idiotypes, bovine somatotropin, milk yield, monoclonal antibody, 1707
antimutagenicty, viability, sodium taruocholate deconjugation, cholesterol-binding ability, 2536
antioxidant, fish oil, butter, 1877
artificial insemination, spermatozoa, flow cytometry, cells, S213
asset efficiency, management-intensive grazing, net farm income, operating efficiency, 2412
autolysis, proteinase gene, *Pseudomonas fluorescens*, proteinase, 2078
availability, dairy cows, calcium, phosphorus, 618
average daily gain, heifers, feed bunk length, 99

B

B lymphocyte, immunoglobulin, transforming growth factor-β1, *Bifidobacterium bifidum*, 1869
b2-integrin, myeloperoxidase, periparturient immunosuppression, 2385
Bacillus cereus spores, raw milk, contamination sources, polymerase chain reaction, 305

[1]Page numbers preceded by S refer to the 1998 Joint Meeting Symposium Issue, *Journal of Dairy Science* Volume 82, Supplement 2.

bacteria, etiology, mastitis, heifer, 712
bacteriocin, mastitis, natural inhibitor, 2108, 2625
barley, nonstructural carbohydrates, rumen undegradable protein, corn, 1779
Baysian analysis, calving ease, stillbirth, genetic parameter estimation, 1849
bedding, conditioners, recycled manure, sawdust, 1690
beef cows, milking, suckling, lactation, 1489
behavior, competition, feed intake, dairy cows, 69
image processing, neural networks, S1
bermudagrass, heat stress, lactation, fiber, 2455
best prediction, correlation, milk yield, test day, 2205
lactation yield, test interval method, 438
bifidobacteria, coliform bacteria, yogurt, 2308
probiotic, cheese, survival, 1081
Bifidobacterium bifidum, B lymphocyte, immunoglobulin, transforming growth factor β1, 1869
bile salt hydrolase, deconjugation, *Lactobacillus acidophilus*, 472
lactic acid bacteria, screening, 2530
Lactobacillus acidophilus, sodium taurocholate, sodium glycocholate, 466
bile tolerance, sodium taurocholate, deconjugation, cholesterol-binding ability, 243
bile-tolerant isolates, probiotic, *Lactobacillus acidophilus*, acid-tolerant isolates, 23
binding lipophilic nutrients, b-lactoglublin, bioselective adsorption, 257
bioactive peptides antihypersensitive peptide, enzyme-modified cheese, *Lactobacillus casei*, 1612
Kluyveromyces marxianus, whey fermentation, antihypersensitive properties, 486
bioavailability, methionine, amino acids, dairy cows, 1991
biochemical properties, *Brevibacterium linens*, cheese, enzymology, 891
biomechanics, bone cells, hormones, growth factors, S190
bioselective adsorption, binding lipophilic nutrients, β-lactoglublin, 257
bm3 corn silage, fiber digestibility, intake, fill limitations, 135
body condition score, test-day milk yield, conception, mastitis, 2589
first milk test, lactation performance, path model, 295
body size, productive life, genetics, longevity, 795
body weight, dairy cattle, selection, carcass traits, 802
dairy cows, disease, milk yield, 1188
BoLA-DRB3.2, polymerase chain reaction, restriction fragment length polymorphism, Jersey cattle, 2049
bone cells, hormones, growth factors, biomechanics, S190
Bos indicus, underfeeding, digestion, rice straw, 974
bound water, microstructure, fat, Mozzarella cheese, 1361
bovine, antibiotic, efficacy, mastitis, 1664
heart rate, stress, radiotelemetry, 1179
stage-specific embroyonic antigen-1, embryos, primordial germ cells, 516
tilmicosin, lung, mastitis, 1202
bovine herpesvirus type 1, milk production, modeling repeated measures, Dutch dairy farms, 944
bovine leukocyte adhesion deficiency, clinical mastitis, 2517
bovine mammary gland, T lymphocyte subpopulations, comparative distribution, mammary gland immunity, 1459
bovine oocytes, in vitro fertilization, ovum pickup, green fluorescent protein, 918
bovine response modifier, Parapox virus, *Staphylococcus aureus mastitis, prevention, 2101*
bovine somatotropin, dominant follicle, corpus luteum, cow, 1917
early lactation, processed grains, 404
evaporative cooling, summer heat stress, 2352
lactation, photoperiod, 1716
milk, milk components, stayability, 2564
milk yield, monoclonal antibody, anti-idiotypes, 1707
preovulatory follicules, fatty acids, calcium soaps, 2358
breed, spermatozoa, heat shock, 2617
breeding value estimation, test-day model, daily milk yields, 1555
Brevibacterium linens, cheese, enzymology, biochemical properties, 891
brown midrib, milk production, dairy cattle, forage sorghum, 2127
buffer, effective fiber, ruminal acidosis, by-products, 2709
rumen digestion, lactating cows performance, forage percentage, 2486
bulk milk, risk factors, management styles, somatic cell count, 1655
bulk tank milk, coliforms, noncoliforms, 2620
bull sperm, fertility, modified Tris extender, 817
butter, antioxidant, fish oil, 1877
milk fat, milk fat fractions, 1433
buttermilk, ultrafiltration, reduced fat process cheese, 2334
butyric acid, milk fat, anticarcinogens, conjugated linoleic acid, 1339
butyrophilin, adipophilin, adipocyte differentiation-related protein, 2543
by-products, buffer, effective fiber, ruminal acidosis, 2709
survey, dairy cows, feedstuffs, 445

calcium, composition, microfiltration, whey proteins, 2063
phosphorus, availability, dairy cows, 618
calcium soaps, bovine somatotropin, preovulatory follicules, fatty acids, 2358
callipyge, gene, sheep, S221
lamb, meat, S238, S243
calorimetry, specific rotation, infrared spectroscopy, molecular compounds of lactose, 2558
calves, dry feed, water balance, fecal moisture content, 1960
calving ease, stillbirth, genetic parameter estimation, Baysian analysis, 1849
capillary electrophoresis, polyacrylamide gel electrophoresis, *Lactobacillus delbrueckii*, whole-cell proteins, 870

C

caprine, ovine, whey proteins, functionality, 265
caprine milk fat, gas chromatography, fatty acid composition, 878
carbohydrate supplementation, pasture, protein utilization, 153
carbohydrates, dairy goats, lactation, feed intake, 747
carbon dioxide, milk, shelf-life extension, 690
carbonated yogurt, sensory properties, consumer acceptance, 1394
carcass traits, body weight, dairy cattle, selection, 802
carrier, viable, probiotic, Cheddar cheese, 1379
casein degradation, milk fractions, subclinical mastitis, protein, 2402
casein synthesis, goats, mammary gland, peptides, 362
cattle, empirical prediction, models, microbial protein, 1497
forage, protease, rumen, 2644
heat stress, fertility, nonreturn rate, 2611
CD4, CD8, and XX T-cell receptor positive cells, lymphocyte, immunosuppression, periparturient, 315
cells, artificial insemination, spermatozoa, flow cytometry, S213
cellulolytic, microbial populations, ribonucleic acid probes, ruminal bacteria, 122
censoring, length of productive life, genetic evaluation, 2178
Cheddar, Mozzarella, softening, cheese, 2280
Cheddar cheese, carrier, viable, probiotic, 1379
fat globule, image analysis, confocal laser scanning microscopy, 1890
Lactobacillus adjuncts, proteolysis, sensory properties, 1618
milk fat, cheese yield, 2287
cheese, Cheddar, Mozzarella, softening, 2280
enzymology, biochemical properties, *Brevibacterium linens*, 891
Ricotta, shelf-life prediction, sensory, 454
sensory analysis, odor, microorganisms, 1072
survival, bifidobacteria, probiotic, 1081
cheese brine, survival, *Listeria monocytogenes*, sodium chloride, 1860
cheese flavor, *Lactobacillus*, amino acid catabolism, tryptophan, 2070
cheese ripening, cyprosins, chymosin, milk coagulation, 2331
lipolysis, free fatty acids, ovine milk cheese, 885
cheese slurries, nonstarter lactobacilli, proteolysis, ripening, 1370
cheese yield, Cheddar cheese, milk fat, 2287
chemiluminescence, *Streptococcus urberis* mastitis, recombinant bovine somatotropin, diapedesis, 1465
chewing index, critical roughage portion, physical structure, supplemental feeds, 110
chocolate, milk fat, ice cream, 1425
cholera toxin, yogurt, immunity, lactic acid bacteria, 649
cholesterol-binding ability, antimutagenicity, viability, sodium taruocholate deconjugation, 2536
bile tolerance, sodium taurocholate, deconjugation, 243
cholesterol removal, β-cyclodextrin, homogenized milk, 2327
chymosin, milk coagulation, cheese ripening, cyprosins, 2331
clinical mastitis, abortion, risk factors, dairy cows, 1684
bovine leukocyte adhesion deficiency, 2517
genetic parameters, somatic cell count, udder conformation, 2198
risk factors, pathogens, management, 1643
cloning, gametes, epigenetics, methylation, S228
coagulation, front-face fluorescence, multidimensional analysis, milk, 2056
coliform bacteria, ferric enterobactin receptor, 86
yogurt, bifidobacteria, 2308
coliforms, noncoliforms, bulk tank milk, 2620
color, genetic parameters, milk, 215
combined bag technique, digestible energy, lactating cows, 566
commercial mixed-strain starter, Manchego cheese, defined-strain starter, 2300
comparative distribution, mammary gland immunity, bovine mammary gland, T lymphocyte subpopulations, 1459
compensatory growth, pastures, supplements, feedlots, S136
competition, feed intake, dairy cows, behavior, 69
composition, functionality, fat reduction, Mozzarella cheese, 661

microfiltration, whey proteins, calcium, 2063
whey, phospholipids, 2550
concentrate, satiation, feeding behavior, feed intake, 2443
concentrated yogurt, labneh, rheology, microstructure, 682
conception, mastitis, body condition score, test-day milk yield, 2589
conditioners, recycled manure, sawdust, bedding, 1690
conflict, research, learning, S163
confocal laser scanning microscopy, Cheddar cheese, fat globule, image analysis, 1890
conjugated linoleic acid, butyric acid, milk fat, anticarcinogens, 1339
dairy cow, milk, rumen, 2146
lactation, fatty acids, milk fat, 2730
milk fat, cow, rumen, 412
consumer acceptance, carbonated yogurt, sensory properties, 1394
contamination sources, polymerase chain reaction, *Bacillus cereus* spores, raw milk, 305
continuous evaluation, mating system, genetic evaluation, 1052
copper lysine, copper sulfate, heifers, 2635
corn, barley, nonstructural carbohydrates, rumen undegradable protein, 1779
energy, transition cow, 1765
lysine, oil, economics, S197
corn silage, corn hybrids, dairy cattle, 2739
fiber, particle size, effective fiber, 581
mechanical processing, maturity, 2806
corpus luteum, cow, bovine somatotropin, dominant follicle, 1917
correction, preferential treatment, dairy breeding, 181
correlation, (co)variance function coefficients, test-day model, hertitability, 1848
milk yield, test day, best prediction, 2205
cottonseed, starch, milk yield, 1296, 1305
(co)variance function coefficients, test-day model, hertitability, correlation, 1848
test-day model, variance component estimation, 226
covers, anaerobic digestion, manures, odors, S169
cow, bovine somatotropin, dominant follicle, corpus luteum, 1917
dairy, organic, reproduction, 2605
rumen, conjugated linoleic acid, milk fat, 412
cow grouping, response function, nutrient requirements, nitrogen excretion, S72
cow survival, Israeli Holsteins, animal model, genetic analysis, 2170
cows, absorption, magnesium, potassium, 1824
milk, protein, amino acids, 161
vitamin C, plasma, 1831
critical roughage portion, physical structure, supplemental feeds, chewing index, 110
crude protein, protein degradability, ruminally undegraded protein, dairy cows, 545
cubic splines, genetic effects, lactation curves, smoothing, 632
cultured dairy products, value-added, probiotic foods, 2245
β-cyclodextrin, homogenized milk, cholesterol removal, 2327
cyprosins, chymosin, milk coagulation, cheese ripening, 2331

D

daily milk yields, breeding value estimation, test-day model, 1555
dairy, expansion, 45
heat stress, intake, metabolism, milk, S21
organic, reproduction, cow, 2605
dairy breeding, correction, preferential treatment, 181
dairy cattle, corn silage, corn hybrids, 2739
dynamic programming, replacement, management, 1449
forage sorghum, brown midrib, milk production, 2127
grass silage, starch, rumen fermentation, 143
mathematical model, persistency, lactation yield, 2192
metabolites, glucose, ovary, 39
quantitative trait loci, nonproduction traits, 2514
selection, carcass traits, body weight, 802
dairy cattle reproduction, trace elements, 1019
dairy cow, methionine, methionine hydroxy analog, ruminal escape, 355
milk, rumen, conjugated linoleic acid, 2146
triacylglycerols, fatty acids, fatty liver, 280
dairy cows, amino acids, protein, 2115
behavior, competition, feed intake, 69
bioavailability, methionine, amino acids, 1991
calcium, phosphorus, availability, 618
clinical mastitis, abortion, risk factors, 1684
crude protein, protein degradability, ruminally undegraded protein, 545
disease, milk yield, body weight, 1188
feed intake, milk yield, genetic merit, 2749
feedstuffs, by-products, survey, 445
fibrolytic enzyme supplement, digestibility, milk production, 2121
fibrolytic enzyme, forage, digestibility, 391
flaked grains, protein source, 728
glucagon, fatty liver, ketosis, 1139
metabolism, 1118, 1128
gluconeogenesis, fatty liver, 500
grass silage, methionine, lysine, 2652

histidine, infusions, grass silage, 2667
mastitis, *Escherichia coli*, fingerprinting, 80
milk production, milk components, monensin, 272
nitrogen balance, ammonia, 2440
milk yield, accuracy, milking machine, 953
naked oats, milk yield, 1004
overfeeding, esterification, adipose tissue, 1164
phosphorous requirement, feed intake, milk yield, 2157
primiparous cows, ionophores, lasalocid, 1817
protein, reproduction, ryegrass, 2690
ruminal pH, subacute ruminal acidosis, rumenocentesis, 1170
dairy ewes, genetic parameters, lactation measure, somatic cell counts, 639
vitamin E, selenium, somatic cell count, 623
dairy farming, nutrient, management, S84
dairy goats, lactation, feed intake, carbohydrates, 747
dairy grazing, stocking rate, milk, supplements, 1795
dairy heifer, estrus synchronization, fixed-time artificial insemination, reproductive performance, 910
dairy herd, model, production, system, 2819
dairy management, modeling, milk urea N, dairy nutrition, 1261
dairy manure, nitrogen ammonia, volatilization, 2421, 2430
dairy nutrition, dairy management, modeling, milk urea N, 1261
data acquisition, yield accounting, process control, 2039
deconjugation, cholesterol-binding ability, bile tolerance, sodium taurocholate, 243
Lactobacillus acidophilus, bile salt hydrolase, 472
defined-strain starter, commercial mixed-strain starter, Manchego cheese, 2300
degradability, milk production, lactating goats, protein source, 555
denaturation, whey proteins, aggregration, differential scanning calorimetry, 1882
diapedesis, chemiluminescence, *Streptococcus urberis* mastitis, recombinant bovine somatotropin, 1465
diet, supplementary feeds, weight gain, forage, S122
dietary cation-anion difference, ruminants, hypocalcemia, urine, 1325
dietary fat, transition, liver, lipid metabolism, 2259
differential scanning calorimetry, denaturation, whey proteins, aggregration, 1882
digestibility, dairy cows, fibrolytic enzyme, forage, 391
milk production, dairy cows, fibrolytic enzyme supplement, 2121
grain source, enzymes, 378
net energy of lactation, alfalfa, forage quality, 1943
oleamide, milk fatty acids, milk composition, 1525
rumen passage rates, heifers, heat stress, 967
digestible energy, lactating cows, combined bag technique, 566
digestion, extrusion, feeding frequency, 1252
forages, grains, in vitro, 1791
lactating cows, fiber, enzymes, 996
rice straw, *Bos indicus*, underfeeding, 974
disease, milk yield, body weight, dairy cows, 1188
yield, type traits, longevity, 1331
dominance, genetic response, mating system, 2186
dominant follicle, corpus luteum, cow, bovine somatotropin, 1917
dose response, phagocytosis, respiratory burst, lactic acid bacteria, 863
drug use, quality assurance, producers, waste management, 2224
dry cow, energy, protein, fatty liver, 1282
dry cow therapy, *Staphylococcus aureus*, mastitis, pathogens, 1221
dry feed, water balance, antidiuretic hormone, suckling calves, 320
fecal moisture content, calves, 1960
Dutch dairy farms, bovine herpesvirus type 1, milk production, modeling repeated measures, 944
dynamic programming, replacement, management, dairy cattle, 1449
dyschondroplasia, growth, osteochondritis, S183

E

early lactation, processed grains, bovine somatotropin, 404
economics, corn, lysine, oil, S197
pasture, supplement, stocking rate, 1808
effective fiber, corn silage, fiber, particle size, 581
ruminal acidosis, by-products, buffer, 2709
efficacy, mastitis, bovine, antibiotic, 1664
electrical conductivity, *Streptococcus uberis*, intramammary antibiotic, oxytocin, 93
elevated temperature ripening, reduced fat Cheddar cheese, lacticin 3147, 10
embryo, estrus, fertility, heat stress, S36
embryo transfer, timed insemination, pregnancy rate, heat stress, 2369
embryos, primordial germ cells, bovine, stage-specific embroyonic antigen-1, 516
empirical prediction, models, microbial protein, cattle, 1497
emulsifier, food gum, ice crystals, nonfat ice cream, 1416
endoscopy, milk yield, somatic cell count, teat injuries, 1482
energy balance, ova, hormone, transvaginal follicular aspiration, 1731

random regression, fertility, 1927
transition cow, corn, 1765
energy requirements, protein requirements, heifer growth, 1968
energy, protein, fatty liver, dry cow, 1282
enterococci, silage, 2466
environment, nitrogen, whole farm, simulation, 2834
enzymatic activities, high-pressure homogenization, goat cheese, microbial and chemico-physical characteristics, 851
enzymatic activity, high pressure, lactic acid bacteria, 1092
enzyme-modified cheese, *Lactobacillus casei*, bioactive peptide, antihypersensitive peptide, 1612
enzymes, digestion, lactating cows, fiber, 996
digestitibility, milk production, grain source, 378
fiber, lactation, 611
enzymology, biochemical properties, *Brevibacterium linens*, cheese, 891
epigenetics, methylation, cloning, gametes, S228
Escherichia coli, lactoferrin, timekill, 494
fingerprinting, dairy cows, mastitis, 80
Escherichia coli J5, heifers, mastitis, vaccine, 939
mastitis, vaccine, intramammary immunization, 2582
esterification, adipose tissue, dairy cows, overfeeding, 1164
estradiol, inflammation, uterus, immunity, S101
estrogen, heifers, prepubertal growth, 1746, 1753
liver trigylceride, feed intake, parturition, 1440
estrus, fertility, heat stress, embryo, S36
estrus synchronization, fixed-time artificial insemination, reproductive performance, dairy heifer, 910
ethanol, feed, milk flavor, 420
ethics, teaching, S154
etiology, mastitis, heifer, bacteria, 712
evaluation frequency, genetic evaluation, 2759
evaporative cooling, summer heat stress, bovine somatotropin, 2352
exopolysaccharide, peptides, amino acids, 2315
expansion, dairy, 45
extracellular protease, *Lactobacillus delbrueckii* ssp. *bulgaricus*, lactic acid bacteria, microplate, 481
extrusion, feeding frequency, digestion, 1252

F

factor analysis, sheep lactation curves, test day, 2212
failure time, mixed model, survival, S147
fat globule, image analysis, confocal laser scanning microscopy, Cheddar cheese, 1890
fat, fatty liver, lipotropic, methionine, 2724
Mozzarella cheese, bound water, microstructure, 1361
sensory properties, ice cream, 32
fat reduction, Mozzarella cheese, composition, functionality, 661
fat replacers, sensory, ice cream, 2094
fat-corrected milk, rumen fermentation, fibrous byproducts, lactating dairy cows, 2702
fatty acid composition, caprine milk fat, gas chromatography, 878
fatty acids, calcium soaps, bovine somatotropin, preovulatory follicules, 2358
fatty liver, dairy cow, triacylglycerols, 280
milk fat, conjugated linoleic acid, lactation, 2730
fatty liver, dairy cows, gluconeogenesis, 500
triacylglycerols, fatty acids, 280
dry cow, energy, protein, 1282
ketosis, dairy cows, glucagon, 1139
lipotropic, methionine, fat, 2724
fear, milk yield, handling, stress, 720
fecal moisture content, calves, dry feed, water balance, 1960
feed bunk length, average daily gain, heifers, 99
feed intake, carbohydrates, dairy goats, lactation, 747
concentrate, satiation, feeding behavior, 2443
dairy cows, behavior, competition, 69
glucose and carbohydrates, goats, propionate, 738
live weight, random regression, genetic correlations, 1565
milk yield, dairy cows, phosphorous requirement, 2157
milk yield, genetic merit, dairy cows, 2749
parturition, estrogen, liver trigylceride, 1440
feed, milk flavor, ethanol, 420
feeding behavior, feed intake, concentrate, satiation, 2443
feeding trials, statistical design, S177
feeding frequency, digestion, extrusion, 1252
feedlots, compensatory growth, pastures, supplements, S136
feedstuffs, by-products, survey, dairy cows, 445
fermentation, lactose derivatives, lactic acid bacteria, ribotyping, 249
ferric enterobactin receptor, coliform bacteria, 86
fertility, energy balance, random regression, 1927
heat stress, embryo, estrus, S36
modified Tris extender, bull sperm, 817
nonreturn rate, cattle, heat stress, 2611
Feta cheese, salt, rennet, 1061
fiber, bermudagrass, heat stress, lactation, 2455
enzymes, digestion, lactating cows, 996
lactation, enzymes, 611
particle size, tallow, 1532
effective fiber, corn silage, 581
fiber digestibility, intake, fill limitations, bm3 corn silage, 135

forage quality, 589
fibrolytic enzyme, forage, digestibility, dairy cows, 391
fibrolytic enzyme supplement, digestibility, milk production, dairy cows, 2121
fibrous by-products, lactating dairy cows, fat-corrected milk, rumen fermentation, 2702
fill limitations, bm3 corn silage, fiber digestibility, intake, 135
forage quality, fiber digestibility, intake, 589
final score, genetic evaluation, animal model, linear type model, 1350
fingerprinting, dairy cows, mastitis, *Escherichia coli*, 80
Finnish Ayrshire, protein polymorphism, first lactation, milk production traits, 1026
Finnish dairy cows, milk coagulation, noncoagulation, genetic parameters, 205
first lactation, milk production traits, Finnish Ayrshire, protein polymorphism, 1026
first milk test, lactation performance, path model, body condition scoring, 295
fish oil, butter, antioxidant, 1877
fixed-time artificial insemination, reproductive performance, dairy heifer, estrus synchronization, 910
flaked grains, protein source, dairy cows, 728
flow cytometry, cells, artificial insemination, spermatozoa, S213
food gum, ice crystals, nonfat ice cream, emulsifier, 1416
forage, diet, supplementary feeds, weight gain, S122
digestibility, dairy cows, fibrolytic enzyme, 391
protease, rumen, cattle, 2644
forage percentage, buffer, rumen digestion, lactating cows performance, 2486
forage quality, digestibility, net energy of lactation, alfalfa, 1943
fiber digestibility, intake, fill limitations, 589
forage sorghum, brown midrib, milk production, dairy cattle, 2127
forages, grains, in vitro, digestion, 1791
protein degradation, proteases, *Streptomyces griseus* protease, 343
Fourier transform infrared spectroscopy, ketosis, multivariate calibration, acetone, 2005
free fatty acids, ovine milk cheese, cheese ripening, lipolysis, 885
freezing point, texture, ice cream, recrystallization, 460
front-face fluorescence, multidimensional analysis, milk, coagulation, 2056
full fat canola seed, amino acid, in situ degradation, micronization, 537
fumarate, methane, ruminal microorganisms, 780
functional traits, genetic correlations, multitrait, cross-country evaluation, survival, 2054
functionality, caprine, ovine, whey proteins, 265
fat reduction, Mozzarella cheese, composition, 661

G

gametes, epigenetics, methylation, cloning, S228
gas chromatography, fatty acid composition, caprine milk fat, 878
gas production, rumen fermentation, adaptation, 957
gene, sheep, callipyge, S221
generalized linear model, variance component estimation, negative binomial, reproduction, 1834
genetic analysis, cow survival, Israeli Holsteins, animal model, 2170
genetic correlation, Mexico, milk yield, genotype-by-environment interaction, 2218
feed intake, live weight, random regression, 1565
multitrait, cross-country evaluation, survival, functional traits, 2054
genetic effects, lactation curves, smoothing, cubic splines, 632
genetic evaluation, animal model, linear type model, final score, 1350
censoring, length of productive life, 2178
continuous evaluation, mating system, 1052
evaluation frequency, 2759
longevity, survival analysis, 1034
milk yield, heritability, Method-R, 2231
mixed linear models, preconditioned conjugate gradient, 2772
genetic markers, milk production, quantitative trait loci, growth hormone, 788
genetic merit, dairy cows, feed intake, milk yield, 2749
genetic parameter estimates, milk protein composition, milk protein genotypes, 2790
genetic parameter estimation, Baysian analysis, calving ease, stillbirth, 1849
genetic parameters, milk, color, 215
Finnish dairy cows, milk coagulation, noncoagulation, 205
Holsteins, REML, milk yield, 1574
lactation measure, somatic cell counts, dairy ewes, 639
somatic cell count, udder conformation, clinical mastitis, 2198
test-day models, random regressions, 2798
genetic response, mating system, dominance, 2186
genetic trend, model validation, 2804
production, reproduction, Jersey, 196
genetics, genotype-by-environment interaction, grazing, 191
livestock, animal breeding, S111
longevity, body size, productive life, 795

mastitis, *Staphylococcus aureus*, somatic cell count, 2393
genotype-by-environment interaction, genetic correlation, Mexico, milk yield, 2218
grazing, genetics, 191
glucagon, fatty liver, ketosis, dairy cows, 1139
lactating cows, mRNA expression, gluconeogenic enzymes, 1153
metabolism, dairy cows, 1128
glucocortoids, somatotropin, adenosine, adipose lipolysis, 60
gluconeogenesis, fatty liver, dairy cows, 500
ureagenesis, sheep, lactation, 597
gluconeogenic enzymes, glucagon, lactating cows, mRNA expression, 1153
glucose, kinetics, protein, somatotropin, 1274
ovary, dairy cattle, metabolites, 39
protein, somatotropin, metabolites, 982
glucose and carbohydrates, goats, propionate, feed intake, 738
glutathione peroxidase, selenate, selenized yeast, liver, 429
goat cheese, microbial and chemico-physical characteristics, enzymatic activities, high-pressure homogenization, 851
goats, mammary gland, peptides, casein synthesis, 362
propionate, feed intake, glucose and carbohydrates, 738
gossypol, vitamin E, Holstein calves, 1240
grain, starch, protein, oil, S208
grain source, enzymes, digestibility, milk production, 378
grains, in vitro, digestion, forages, 1791
graphics, packaging, new products, 2257
grass, acidic diets, acid-base balance, milk fever, 1310
grass silage, dairy cows, histidine, infusions, 2667
methionine, lysine, dairy cows, 2652
starch, rumen fermentation, dairy cattle, 143
grasses, maturity, in situ degradation, alfalfa, 1978
grazing, genetics, genotype-by-environment interaction, 191
green fluorescent protein, bovine oocytes, in vitro fertilization, ovum pickup, 918
growth, osteochondritis, dyschondroplasia, S183
growth factors, biomechanics, bone cells, hormones, S190
growth hormone, genetic markers, milk production, quantitative trait loci, 788
receptor, promoter, IGF-I, 1910

H

handling, stress, fear, milk yield, 720
heart rate, stress, radiotelemetry, bovine, 1179
heat shock, breed, spermatozoa, 2617
heat stress, digestibility, rumen passage rates, heifers, 967
embryo, estrus, fertility, S36
embryo transfer, timed insemination, pregnancy rate, 2369
intake, metabolism, milk, dairy, S21
fertility, nonreturn rate, cattle, 2611
lactation, fiber, bermudagrass, 2455
heat treatment, stabilizer, stereology, whippping cream, 1635
heifer, bacteria, etiology, mastitis, 712
prepubertal growth, estrogen, 1746
heifer growth, energy requirements, protein requirements, 1968
heifer mastitis, *Staphylococcus aureus*, randomly amplified polymorphic DNA fingerprinting, horn flies, 1581
heifers, copper lysine, copper sulfate, 2635
heifers, feed bunk length, average daily gain, 99
heat stress, digestibility, rumen passage rates, 967
mastitis, vaccine, *Escherichia coli* J5, 939
prepubertal growth, estrogen, 1753
herd life, survival analysis, 2503
heritability, correlation, (co)variance function coefficients, test-day model, 1848
Method-R, genetic evaluation, milk yield, 2231
teat end shape, teat diameter, somatic cell score, 2017
variance component estimation, test-day model, multitrait evaluation, 225
high hydrostatic pressure, *Staphylococcus aureus*, 1099
high pressure, lactic acid bacteria, enzymatic activity, 1092
high-pressure homogenization, goat cheese, microbial and chemico-physical characteristics, enzymatic activities, 851
histidine, infusions, grass silage, dairy cows, 2667
Holstein calves, gossypol, vitamin E, 1240
Holsteins, REML, milk yield, genetic parameters, 1574
homogenized milk, cholesterol removal, β-cyclodextrin, 2327
hormone, transvaginal follicular aspiration, energy balance, ova, 1731
hormones, growth factors, biomechanics, bone cells, S190
horn flies, heifer mastitis, *Staphylococcus aureus*, randomly amplified polymorphic DNA fingerprinting, 1581
β-hydroxybutyrate, lactating dairy cows, monensin controlled-release capsule, subclinical ketosis, 333
hypocalcemia, urine, dietary cation-anion difference, ruminants, 1325

I

ice cream, chocolate, milk fat, 1425
fat, sensory properties, 32
fat replacers, sensory, 2094
recrystallization, freezing point, texture, 460
stabilizers, ice crystals, size distribution, 1399, 1408
ice crystals, nonfat ice cream, emulsifier, food gum, 1416
size distribution, ice cream, stabilizers, 1399, 1408
IGF-I, growth hormone, receptor, promoter, 1910
image analysis, confocal laser scanning microscopy, Cheddar cheese, fat globule, 1890
image processing, neural networks, animal welfare, behavior, S1
immune function, vitamin A status, vitamin E, neonatal calf, 2625
immunity, estradiol, inflammation, uterus, S101
lactic acid bacteria, cholera toxin, yogurt, 649
immunoglobulin, transforming growth factorβ1, *Bifidobacterium bifidum*, B lymphocyte, 1869
immunomodulation, lactic acid bacteria, intestinal interactions, 1108
immunosuppression, preiparturient, CD4, CD8, and XX T-cell receptor positive cells, lymphocyte, 315
in situ, protein degradation, near-infrared, silages, 771
silage, near-infrared, 764
proteolysis, near-infrared, 756
in situ degradation, alfalfa, grasses, maturity, 1978
micronization, full fat canola seed, amino acid, 537
in vitro, digestion, forages, grains, 1791
Saccharomyces cerevisiae culture, rumen, microorganisms, 2011
in vitro fertilization, ovum pickup, green fluorescent protein, bovine oocytes, 918
inbreeding, relationship matrix, mating programs, 2764
inducible nitric oxide synthase, mastitis, nitric oxide, 2574
inflammation, uterus, immunity, estradiol, S101
infrared spectroscopy, molecular compounds of lactose, calorimetry, specific rotation, 2558
infusions, grass silage, dairy cows, histidine, 2667
insulin, amino acids, milk, protein, 1512
intake, fill limitations, bm3 corn silage, fiber digestibility, 135
forage quality, fiber digestibility, 589
metabolism, milk, dairy, heat stress, S21
yeast, prepartum, milk yield, 605
interaction effects, international sire evaluations, 2030
interleukin-4, mastitis, T-helper lymphocytes, interkeukin-2, 1696
international conversions, linear regression, robust methods, 2023
international sire evaluations, interaction effects, 2030
intestinal interactions, immunomodulation, lactic acid bacteria, 1108
intramammary antibiotic, oxytocin, electrical conductivity, *Streptococcus uberis*, 93
intramammary immunization, *Escherichia coli* J5, mastitis, vaccine, 2582
involution, milk proteins, mammary gland, 1723
ionophores, lasalocid, dairy cows, primiparous cows, 1817
isolation of milk, separation technologies, 2238
Israeli Holsteins, animal model, genetic analysis, cow survival, 2170
iteration on data, preconditioned conjugate gradient, test-day model, 2781

J

Jersey, genetic trends, production, reproduction, 196
Jersey cattle, BoLA-DRB3.2, polymerase chain reaction, restriction fragment length polymorphism, 2049

K

ketosis, abomasal displacement, reproduction, monensin, 2377
dairy cows, glucagon, fatty liver, 1139
multivariate calibration, acetone, Fourier transform infrared spectroscopy, 2005
kinetics, protein, somatotropin, glucose, 1274
Kluyveromyces marxianus, whey fermentation, antihypersensitive properties, bioactive peptides, 486

L

labneh, rheology, microstructure, concentrated yogurt, 682
β-lactam antibiotics, raw milk, microbial inhibitor test, somatic cells, 704
lactating cows, combined bag technique, digestible energy, 566
fiber, enzymes, digestion, 996
milk composition, wet corn distillers grains, 574
mRNA expression, gluconeogenic enzymes, glucagon, 1153
lactating cows performance, forage percentage, buffer, rumen digestion, 2486
lactating dairy cows, fat-corrected milk, rumen fermentation, fibrous by-products, 2702
monensin controlled-release capsule, subclinical ketosis, β-hydroxybutyrate, 333
lactating goats, protein source, degradability, milk production, 555

lactation, beef cows, milking, suckling, 1489
enzymes, fiber, 611
fatty acids, milk fat, conjugated linoleic acid, 2730
feed intake, carbohydrates, dairy goats, 747
fiber, bermudagrass, heat stress, 2455
photoperiod, bovine somatotropin, 1716
gluconeogenesis, ureagenesis, sheep, 597
lactation curves, smoothing, cubic splines, genetic effects, 632
lactation measure, somatic cell counts, dairy ewes, genetic parameters, 639
lactation performance, path model, body condition scoring, first milk test, 295
lactation yield, dairy cattle, mathematical model, persistency, 2192
test interval method, best prediction, 438
lactic acid bacteria, acidification, viscosity, yogurt, 673
cholera toxin, yogurt, immunity, 649
dose response, phagocytosis, respiratory burst, 863
enzymatic activity, high pressure, 1092
intestinal interactions, immunomodulation, 1108
menaquinones, vitamin K_2, 1897
microplate, extracellular protease, *Lactobacillus delbrueckii* ssp. *bulgaricus*, 481
ribotyping, fermentation, lactose derivatives, 249
screening, bile salt hydrolase, 2530
silage, aerobic deterioration, 520
lactic acidosis, ruminal pH, virginamycin, sodium bicarbonate, 1545
lacticin 3147, elevated temperature ripening, reduced fat Cheddar cheese, 10
Lactobacillus, amino acid catabolism, tryptophan, cheese flavor, 2070
Lactobacillus acidophilus, acid-tolerant isolates, bile-tolerant isolates, probiotic, 23
bile salt hydrolase, deconjugation, 472
lectin, rat colonic mucosa, surface layer protein, 2525
sodium taurocholate, sodium glycocholate, bile salt hydrolase, 466
Lactobacillus adjuncts, proteolysis, sensory properties, Cheddar, 1618
Lactobacillus casei, bioactive peptide, antihypersensitive peptide, enzyme-modified cheese, 1612
Lactobacillus delbrueckii, whole-cell proteins, capillary electrophoresis, polyacrylamide gel electrophoresis, 870
Lactobacillus delbrueckii ssp. *bulgaricus*, lactic acid bacteria, microplate, extracellular protease, 481
reactive oxygen species, lipid peroxidation products, *Streptococcus thermophilus*, 1629
Lactobacillus helveticus, antihypertensive peptide, angiotensin I-converting enzyme, yogurt-like product, 1388
β-lactoglublin, bioselective adsorption, binding lipophilic nutrients, 257
lactoferrin, timekill, *Escherichia coli*, 494
lactophorin, proteose-peptone component 3, alternative mRNA splicing, 2084
lactose derivatives, lactic acid bacteria, ribotyping, fermentation, 249
lactose hydrolysis, multivariate curve resolution, process control, reference-independent, 1351
lamb, meat, callipyge, S238, S243
land-use, watershed, soil management, nutrients, S90
lasalocid, dairy cows, primiparous cows, ionophores, 1817
late lactation, milk composition, once daily milking, tight junctions, 1232
learning, conflict, research, S163
lectin, rat colonic mucosa, surface layer protein, *Lactobacillus acidophilus*, 2525
length of productive life, genetic evaluation, censoring, 2178
Letter to the Editor, 453, 2055
linear regression, robust methods, international conversions, 2023
linear type model, final score, genetic evaluation, animal model, 1350
lipid metabolism, dietary fat, transition, liver, 2259
lipid peroxidation products, *Streptococcus thermophilus, Lactobacillus delbrueckii* ssp. *bulgaricus*, reactive oxygen species, 1629
lipolysis, free fatty acids, ovine milk cheese, cheese ripening, 885
lipotropic, methionine, fat, fatty liver, 2724
Listeria monocytogenes, sodium chloride, cheese brine, survival, 1860
live weight, random regression, genetic correlations, feed intake, 1565
liver, glutathione peroxidase, selenate, selenized yeast, 429
lipid metabolism, dietary fat, transition, 2259
liver glyceride, prepartum nutrition, rumen-undegradable protein, nonesterfied fatty acids, 527
liver trigylceride, feed intake, parturition, estrogen, 1440
livestock, animal breeding, genetics, S111
livestock manure, nutrient application, regulations, water quality, S51
longevity, body size, productive life, genetics, 795
diseases, yield, type traits, 1331
survival analysis, genetic evaluation, 1034
lung, mastitis, bovine, tilmicosin, 1202
lymphocyte, immunosuppression, periparturient, CD4, CD8, and XX T-cell receptor positive cells, 315
lysine, dairy cows, grass silage, methionine, 2652
oil, economics, corn, S197

M

maceration, alflafa silage, 2472
magnesium, potassium, cows, absorption, 1824
mammary gland, involution, milk proteins, 1723
peptides, casein synthesis, goats, 362
mammary gland immunity, bovine mammary gland, T lymphocyte subpopulations, comparative distribution, 1459
management, clinical mastitis, risk factors, pathogens, 1643
dairy cattle, dynamic programming, replacement, 1449
dairy farming, nutrient, S84
management styles, somatic cell count, bulk milk, risk factors, 1655
management-intensive grazing, net farm income, operating efficiency, asset efficiency, 2412
pasture, animal-selected sampling, nutrient, 1538
Manchego cheese, defined-strain starter, commercial mixed-strain starter, 2300
manures, odors, covers, anaerobic digestion, S169
mass nutrient balance, nutrient management, water quality, 2164
mastitis, body condition score, test-day milk yield, conception, 2589
bovine, antibiotic, efficacy, 1664
tilmicosin, lung, 1202
Escherichia coli, fingerprinting, dairy cows, 80
heifer, bacteria, etiology, 712
milk yield, repeated measures, mixed model, 1213
natural inhibitor, bacteriocin, 2108, 2625
inducible nitric oxide synthase, 2574
pathogens, dry cow therapy, *Staphylococcus aureus*, 1221
somatic cell count, somatic cell production deviance, 1045
Staphylococcus aureus, 645
antibiotic resistance, risk factors, 927
somatic cell count, genetics, 2393
tilmicosin, antibiotic, 696
T-helper lymphocytes, interkeukin-2, interleukin-4, 1696
vaccine, *Escherichia coli* J5, heifers, 939
intramammary immunization, *Escherichia coli* J5, 2582
vitamin D, 1904
mathematical model, persistency, lactation yield, dairy cattle, 2192
mating programs, inbreeding, relationship matrix, 2764
mating system, dominance, genetic response, 2186
genetic evaluation, continuous evaluation, 1052
maturity, corn silage, mechanical processing, 2806
in situ degradation, alfalfa, grasses, 1978
meat, callipyge, lamb, S238, S243
mechanical processing, maturity, corn silage, 2806
meltability, Mozzzarella cheese, Schreiber test, 1068
menaquinones, vitamin K_2, lactic acid bacteria, 1897
metabolic diseases, milk yield, repeated measures, mixed model analysis, 288
metabolism, dairy cows, glucagon, 1118, 1128
milk, dairy, heat stress, intake, S21
metabolites, glucose, ovary, dairy cattle, 39
protein, somatotropin, 982
methane, ruminal microorganisms, fumarate, 780
methionine, amino acids, dairy cows, bioavailability, 1991
fat, fatty liver, lipotropic, 2724
lysine, dairy cows, grass silage, 2652
methionine hydroxy analog, ruminal escape, dairy cow, 355
proliferation, 1935
methionine hydroxy analog, ruminal escape, dairy cow, methionine, 355
Method-R, genetic evaluation, milk yield, heritability, 2231
methylation, cloning, gametes, epigenetics, S228
Mexico, milk yield, genotype-by-environment interaction, genetic correlation, 2218
microbial and chemico-physical characteristics, enzymatic activities, high-pressure homogenization, goat cheese, 851
microbial inhibitor test, somatic cells, β-lactam antibiotics, raw milk, 704
microbial populations, ribonucleic acid probes, ruminal bacteria, cellulolytic, 122
microbial protein, cattle, empirical prediction, models, 1497
microfiltration, whey proteins, calcium, composition, 2063
micronization, full fat canola seed, amino acid, in situ degradation, 537
microorganisms, cheese, sensory analysis, odor, 1072
in vitro, *Saccharomyces cerevisiae* culture, rumen, 2011
microplate, extracellular protease, *Lactobacillus delbrueckii* ssp. *bulgaricus*, lactic acid bacteria, 481
microsatellite markers, trait types, milk production traits, quantitative trait loci, 2497
microstructure, concentrated yogurt, labneh, rheology, 682
fat, Mozzarella cheese, bound water, 1361
milk, coagulation, front-face fluorescence, multidimensional analysis, 2056
color, genetic parameters, 215
milk components, stayability, bovine somatotropin, 2564

protein, amino acids, cows, 161
insulin, amino acids, 1512
rumen, conjugated linoleic acid, dairy cow, 2146
shelf-life extension, carbon dioxide, 690
supplements, dairy grazing, stocking rate, 1795
noncoagulation, genetic parameters, Finnish dairy cows, 205
milk coagulation, cheese ripening, cyprosins, chymosin, 2331
milk components, monensin, dairy cows, milk production, 272
stayability, bovine somatotropin, milk, 2564
milk composition, digestibility, oleamide, milk fatty acids, 1525
once daily milking, tight junctions, late lactation, 1232
protein, phenotype, nutrition, 172
Streptococcus uberis mastitis, recombinant bovine somatotropin, milk production, 1671
wet corn distillers grains, lactating cows, 574
milk fat, anticarcinogens, conjugated linoleic acid, butyric acid, 1339
cheese yield, Cheddar cheese, 2287
conjugated linoleic acid, lactation, fatty acids, 2730
cow, rumen, conjugated linoleic acid, 412
ice cream, chocolate, 1425
milk fat fractions, butter, 1433
probiotics, rennet, starter, 1595
milk fat fractions, butter, milk fat, 1433
milk fatty acids, milk composition, digestibility, oleamide, 1525
milk fever, grass, acidic diets, acid-base balance, 1310
milk flavor, ethanol, feed, 420
milk fractions, subclinical mastitis, protein, casein degradation, 2402
milk mucins, MUC1, MUC-X, 1115
milk production traits, Finnish Ayrshire, protein polymorphism, first lactation, 1026
quantitative trait loci, microsatellite markers, trait types, 2497
milk production, dairy cattle, forage sorghum, brown midrib, 2127
dairy cows, fibrolytic enzyme supplement, digestibility, 2121
grain source, enzymes, digestibility, 378
lactating goats, protein source, degradability, 555
milk components, monensin, dairy cows, 272
milk composition, *Streptococcus uberis* mastitis, recombinant bovine somatotropin, 1671
modeling repeated measures, Dutch dairy farms, bovine herpesvirus type 1, 944
nitrogen balance, ammonia, dairy cows, 2440
nutritive value, tropical grasses, 2136
quantitative trait loci, growth hormone, genetic markers, 788
milk progesterone, vaginal mucus, pregnancy rate, 1742
milk protein genotypes, genetic parameter estimates, milk protein composition, 2790
milk proteins, mammary gland, involution, 1723
milk secretion, tight junction, sodium, potassium, 52
milk urea N, dairy nutrition, dairy management, modeling, 1261
nutritional management, on-line biosensor, 1999
milk yield, accuracy, milking machine, dairy cows, 953
body weight, dairy cows, disease, 1188
cottonseed, starch, 1296, 1305
dairy cows, naked oats, 1004
phosphorous requirement, feed intake, 2157
genetic merit, dairy cows, feed intake, 2749
genetic parameters, Holsteins, REML, 1574
genotype by environment interaction, genetic correlation, Mexico, 2218
handling, stress, fear, 720
heritability, Method-R, genetic evaluation, 2231
intake, yeast, prepartum, 605
monoclonal antibody, anti-idiotypes, bovine somatotropin, 1707
photointensity, photoperiod, reproduction, 810
repeated measures, mixed model analysis, metabolic diseases, 288
repeated measures, mixed model, mastitis, 1213
somatic cell count, teat injuries, endoscopy, 1482
test day, best prediction, correlation, 2205
milking, suckling, lactation, beef cows, 1489
milking machine, dairy cows, milk yield, accuracy, 953
mixed linear models, preconditioned conjugate gradient, genetic evaluation, 2772
mixed model, survival, failure time, S147
mixed model analysis, metabolic diseases, milk yield, repeated measures, 288
mastitis, milk yield, repeated measures, 1213
model, production, system, dairy herd, 2819
model validation, genetic trend, 2804
modeling repeated measures, Dutch dairy farms, bovine herpesvirus type 1, milk production, 944
modeling, milk urea N, dairy nutrition, dairy management, 1261
models, microbial protein, cattle, empirical prediction, 1497
modified Tris extender, bull sperm, fertility, 817
molecular compounds of lactose, calorimetry, specific rotation, infrared spectroscopy, 2558
monensin controlled-release capsule, subclinical ketosis, β-hydroxybutyrate, lactating dairy cows, 333
dairy cows, milk production, milk components, 272
ketosis, abomasal displacement, reproduction, 2377

monoclonal antibody, anti-idiotypes, bovine somatotropin, milk yield, 1707
Mozzarella cheese, bound water, microstructure, fat, 1361
composition, functionality, fat reduction, 661
postmelt chewiness, 2274
sweet buttermilk, ultrafiltration, 1
Schreiber test, meltability, 1068
softening, cheese, Cheddar, 2280
mRNA expression, gluconeogenic enzymes, glucagon, lactating cows, 1153
MUC1, MUC-X, milk mucins, 1115
multidimensional analysis, milk, coagulation, front-face fluorescence, 2056
multitrait, cross-country evaluation, survival, functional traits, genetic correlations, 2054
multivariate calibration, acetone, Fourier transform infrared spectroscopy, ketosis, 2005
multivariate curve resolution, process control, reference-independent, lactose hydrolysis, 1351
myeloperoxidase, periparturient immunosuppression, b2-integrin, 2385

N

naked oats, milk yield, dairy cows, 1004
natural inhibitor, bacteriocin, mastitis, 2108, 2625
near-infrared, in situ, protein degradation, silage, 764
silage, proteolysis, 756
silages, in situ, protein degradation, 771
near-infrared spectroscopy, unhomogenized milk composition, 2344
negative binomial, reproduction, generalized linear model, variance component estimation, 1834
neonatal calf, immune function, vitamin A status, vitamin E, 2625
net energy, starch digestion, postabsorptive metabolism, steam-flaking, 1950
net energy of lactation, alfalfa, forage quality, digestibility, 1943
net farm income, operating efficiency, asset efficiency, management-intensive grazing, 2412
neural networks, animal welfare, behavior, image processing, S1
new products, graphics, packaging, 2257
nitric oxide, inducible nitric oxide synthase, mastitis, 2574
nitrogen, ammonia, volatilization, dairy manure, 2421, 2430
urine volume, sodium, potassium, 1008
phosphorus, nutrient balance, animal manures, S63
whole farm, simulation, environment, 2834
nitrogen balance, ammonia, dairy cows, milk production, 2440
nitrogen excretion, cow grouping, response function, nutrient requirements, S72
noncoagulation, genetic parameters, Finnish dairy cows, milk coagulation, 205
noncoliforms, bulk tank milk, coliforms, 2620
nonesterfied fatty acids, liver glyceride, prepartum nutrition, rumen-undegradable protein, 527
nonfat ice cream, emulsifier, food gum, ice crystals, 1416
nonfiber carbohydrates, purine derivatives, alfalfa silage, allantoin, 2679
nonproduction traits, dairy cattle, quantitative trait loci, 2514
nonreturn rate, cattle, heat stress, fertility, 2611
nonstarter lactobacilli, proteolysis, ripening, cheese slurries, 1370
nonstructural carbohydrates, rumen undegradable protein, corn, barley, 1779
nutrient, management, dairy farming, S84
management-intensive grazing, pasture, animal-selected sampling, 1538
nutrient application, regulations, water quality, livestock manure, S51
nutrient balance, animal manures, nitrogen, phosphorus, S63
nutrient management, water quality, mass nutrient balance, 2164
nutrient requirements, nitrogen excretion, cow grouping, response function, S72
nutrients, land-use, watershed, soil management, S90
nutrition, milk composition, protein, phenotype, 172
nutritional management, on-line biosensor, milk urea nitrogen, 1999
nutritive value, tropical grasses, milk production, 2136

O

odor, microorganisms, cheese, sensory analysis, 1072
odors, covers, anaerobic digestion, manures, S169
oil, economics, corn, lysine, S197
grain, starch, protein, S208
oleamide, milk fatty acids, milk composition, digestibility, 1525
once daily milking, tight junctions, late lactation, milk composition, 1232
on-line biosensor, milk urea nitrogen, nutritional management, 1999
open learning, professional development, animal breeding, 1586
operating efficiency, asset efficiency, management-intensive grazing, net farm income, 2412
organic, reproduction, cow, dairy, 2605
osteochondritis, dyschondroplasia, growth, S183

ova, hormone, transvaginal follicular aspiration, energy balance, 1731
ovary, dairy cattle, metabolites, glucose, 39
overfeeding, esterification, adipose tissue, dairy cows, 1164
ovine, whey proteins, functionality, caprine, 265
ovine milk cheese, cheese ripening, lipolysis, free fatty acids, 885
OvSynch, synchronized estrus, pregnancy rates, 506
ovum pickup, green fluorescent protein, bovine oocytes, in vitro fertilization, 918
oxytocin, electrical conductivity, *Streptococcus uberis*, intramammary antibiotic, 93

P

packaging, new products, graphics, 2257
Parapox virus, *Staphylococcus aureus* mastitis, prevention, bovine response modifier, 2101
particle size, tallow, fiber, 1532
effective fiber, corn silage, fiber, 581
parturition, estrogen, liver trigylceride, feed intake, 1440
pasture, animal-selected sampling, nutrient, management-intensive grazing, 1538
protein utilization, carbohydrate supplementation, 153
supplement, stocking rate, economics, 1808
pastures, supplements, feedlots, compensatory growth, S136
path model, body condition scoring, first milk test, lactation performance, 295
pathogens, dry cow therapy, *Staphylococcus aureus*, mastitis, 1221
management, clinical mastitis, risk factors, 1643
pedigree selection, variance, progeny tests, young sires, 822
peptides, amino acids, exopolysaccharide, 2315
casein synthesis, goats, mammary gland, 362
periparturient, CD4, CD8, and XX T-cell receptor positive cells, lymphocyte, immunosuppression, 315
periparturient immunosuppression, b2-integrin, myeloperoxidase, 2385
persistency, lactation yield, dairy cattle, mathematical model, 2192
phagocytosis, respiratory burst, lactic acid bacteria, dose response, 863
phenotype, nutrition, milk composition, protein, 172
phospholipids, composition, whey, 2550
phosphorus, availability, dairy cows, calcium, 618
nutrient balance, animal manures, nitrogen, S63
phosphorous requirement, feed intake, milk yield, dairy cows, 2157
photointensity, photoperiod, reproduction, milk yield, 810
photoperiod, bovine somatotropin, lactation, 1716
reproduction, milk yield, photointensity, 810
physical structure, supplemental feeds, chewing index, critical roughage portion, 110
plasma, cows, vitamin C, 1831
polyacrylamide gel electrophoresis, *Lactobacillus delbrueckii*, whole-cell proteins, capillary electrophoresis, 870
polymerase chain reaction, *Bacillus cereus* spores, raw milk, contamination sources, 305
restriction fragment length polymorphism, Jersey cattle, BoLA-DRB3.2, 2049
postabsorptive metabolism, steam-flaking, net energy, starch digestion, 1950
postmelt chewiness, Mozzarella cheese, 2274
potassium, cows, absorption, magnesium, 1824
milk secretion, tight junction, sodium, 52
nitrogen, urine volume, sodium, 1008
preconditioned conjugate gradient, genetic evaluation, mixed linear models, 2772
test-day model, iteration on data, 2781
preferential treatment, dairy breeding, correction, 181
pregnancy rate, milk progesterone, vaginal mucus, 1742
heat stress, embryo transfer, timed insemination, 2369
OvSynch, synchronized estrus, 506
preovulatory follicules, fatty acids, calcium soaps, bovine somatotropin, 2358
prepartum nutrition, rumen-undegradable protein, nonesterfied fatty acids, liver glyceride, 527
prepartum, milk yield, intake, yeast, 605
prepubertal growth, estrogen, heifer, 1746, 1753
prevention, bovine response modifier, Parapox virus, *Staphylococcus aureus* mastitis, 2101
primiparous cows, ionophores, lasalocid, dairy cows, 1817
primordial germ cells, bovine, stage-specific embroyonic antigen-1, embryos, 516
Lactobacillus acidophilus, acid-tolerant isolates, bile-tolerant isolates, 23
rennet, starter, milk fat, 1595
probiotic, Cheddar cheese, carrier, viable, 1379
probiotic foods, cultured dairy products, value-added, 2245
cheese, survival, bifidobacteria, 1081
Lactobacillus acidophilus, acid-tolerant isolates, bile-tolerant isolates, 23
process control, data acquisition, yield accounting, 2039
reference-independent, lactose hydrolysis, multivariate curve resolution, 1351
processed cheese, rheological analysis, 1851

processed grains, bovine somatotropin, early lactation, 404
producers, waste management, drug use, quality assurance, 2224
production, reproduction, Jersey, genetic trends, 196
system, dairy herd, model, 2819
productive life, genetics, longevity, body size, 795
professional development, animal breeding, open learning, 1586
progeny tests, young sires, pedigree selection, variance, 822
proliferation, methionine, 1935
promoter, IGF-I, growth hormone, receptor, 1910
propionate, feed intake, glucose and carbohydrates, goats, 738
protease, rumen, cattle, forage, 2644
proteases, *Streptomyces griseus* protease, forages, protein degradation, 343
protein, amino acids, cows, milk, 161
casein degradation, milk fractions, subclinical mastitis, 2402
dairy cows, amino acids, 2115
fatty liver, dry cow, energy, 1282
insulin, amino acids, milk, 1512
oil, grain, starch, S208
phenotype, nutrition, milk composition, 172
reproduction, ryegrass, dairy cows, 2690
somatotropin, glucose, kinetics, 1274
metabolites, glucose, 982
protein degradability, ruminally undegraded protein, dairy cows, crude protein, 545
protein degradation, near-infrared, silages, in situ, 771
proteases, *Streptomyces griseus* protease, forages, 343
silage, near-infrared, in situ, 764
protein polymorphism, first lactation, milk production traits, Finnish Ayrshire, 1026
protein requirements, heifer growth, energy requirements, 1968
protein source, dairy cows, flaked grains, 728
degradability, milk production, lactating goats, 555
protein utilization, carbohydrate supplementation, pasture, 153
proteinase, autolysis, proteinase gene, *Pseudomonas fluorescens*, 2078
proteinase gene, *Pseudomonas fluorescens*, proteinase, autolysis, 2078
proteolysis, near-infrared, in situ, silage, 756
ripening, cheese slurries, nonstarter lactobacilli, 1370
sensory properties, Cheddar, *Lactobacillus* adjuncts, 1618
proteose-peptone component 3, alternative mRNA splicing, lactophorin, 2084
Pseudomonas fluorescens, proteinase, autolysis, proteinase gene, 2078
purine derivatives, alfalfa silage, allantoin, nonfiber carbohydrates, 2679

Q

quality assurance, producers, waste management, drug use, 2224
quantitative trait loci, growth hormone, genetic markers, milk production, 788
microsatellite markers, trait types, milk production traits, 2497
nonproduction traits, dairy cattle, 2514

R

radiotelemetry, bovine, heart rate, stress, 1179
random regression, fertility, energy balance, 1927
genetic correlations, feed intake, live weight, 1565
genetic parameters, test-day models, 2798
randomly amplified polymorphic DNA fingerprinting, horn flies, heifer mastitis, *Staphylococcus aureus*, 1581
rat colonic mucosa, surface layer protein, *Lactobacillus acidophilus*, lectin, 2525
raw milk, contamination sources, polymerase chain reaction, *Bacillus cereus* spores, 305
microbial inhibitor test, somatic cells, β-lactam antibiotics, 704
reactive oxygen species, lipid peroxidation products, *Streptococcus thermophilus, Lactobacillus delbrueckii* ssp. *bulgaricus* , 1629
receptor, promoter, IGF-I, growth hormone, 1910
recombinant bovine somatotropin, diapedesis, chemiluminescence, *Streptococcus urberis* mastitis, 1465
milk production, milk composition, *Streptococcus uberis* mastitis, 1671
recrystallization, freezing point, texture, ice cream, 460
recycled manure, sawdust, bedding, conditioners, 1690
reduced fat Cheddar cheese, lacticin 3147, elevated temperature ripening, 10
reduced fat process cheese, buttermilk, ultrafiltration, 2334
reference-independent, lactose hydrolysis, multivariate curve resolution, process control, 1351
regulations, water quality, livestock manure, nutrient application, S51
relationship matrix, mating programs, inbreeding, 2764
REML, milk yield, genetic parameters, Holsteins, 1574
rennet, Feta cheese, salt, 1061
starter, milk fat, probiotics, 1595

repeated measures, mixed model analysis, metabolic diseases, milk yield, 288
mastitis, milk yield, 1213
replacement, management, dairy cattle, dynamic programming, 1449
reproduction, cow, dairy, organic, 2605
generalized linear model, variance component estimation, negative binomial, 1834
Jersey, genetic trends, production, 196
milk yield, photointensity, photoperiod, 810
monensin, ketosis, abomasal displacement, 2377
ryegrass, dairy cows, protein, 2690
reproductive performance, dairy heifer, estrus synchronization, fixed-time artificial insemination, 910
research, learning, conflict, S136
respiratory burst, lactic acid bacteria, dose response, phagocytosis, 863
response function, nutrient requirements, nitrogen excretion, cow grouping, S72
restriction fragment length polymorphism, Jersey cattle, BoLA-DRB3.2, polymerase chain reaction, 2049
rheological analysis, processed cheese, 1851
rheology, microstructure, concentrated yogurt, labneh, 682
ribonucleic acid probes, ruminal bacteria, cellulolytic, microbial populations, 122
ribotyping, fermentation, lactose derivatives, lactic acid bacteria, 249
rice straw, *Bos indicus*, underfeeding, digestion, 974
Ricotta, shelf-life prediction, sensory, cheese, 454
ripening, cheese slurries, nonstarter lactobacilli, proteolysis, 1370
risk factors, dairy cows, clinical mastitis, abortion, 1684
management styles, somatic cell count, bulk milk, 1655
mastitis, *Staphylococcus aureus*, antibiotic resistance, 927
pathogens, management, clinical mastitis, 1643
robust methods, international conversions, linear regression, 2023
rumen, cattle, forage, protease, 2644
conjugated linoleic acid, dairy cow, milk, 2146
milk fat, cow, 412
microorganisms, in vitro, *Saccharomyces cerevisiae* culture, 2011
rumen digestion, lactating cows performance, forage percentage, buffer, 2486
rumen fermentation, adaptation, gas production, 957
dairy cattle, grass silage, starch, 143
fibrous by-products, lactating dairy cows, fat-corrected milk, 2702
rumen passage rates, heifers, heat stress, digestibility, 967
rumen-undegradable protein, corn, barley, nonstructural carbohydrates, 1779
nonesterfied fatty acids, liver glyceride, prepartum nutrition, 527
rumenocentesis, dairy cows, ruminal pH, subacute ruminal acidosis, 1170
ruminal acidosis, by-products, buffer, effective fiber, 2709
ruminal bacteria, cellulolytic, microbial populations, ribonucleic acid probes, 122
ruminal escape, dairy cow, methionine, methionine hydroxy analog, 355
ruminal microorganisms, fumarate, methane, 780
ruminal pH, subacute ruminal acidosis, rumenocentesis, dairy cows, 1170
virginamycin, sodium bicarbonate, lactic acidosis, 1545
ruminally undegraded protein, dairy cows, crude protein, protein degradability, 545
ruminants, hypocalcemia, urine, dietary cation-anion difference, 1325
ryegrass, dairy cows, protein, reproduction, 2690
Saccharomyces cerevisiae culture, rumen, microorganisms, in vitro, 2011

S

salt, rennet, Feta cheese, 1061
satiation, feeding behavior, feed intake, concentrate, 2443
sawdust, bedding, conditioners, recycled manure, 1690
Schreiber test, meltability, Mozzarella cheese, 1068
screening, bile salt hydrolase, lactic acid bacteria, 2530
selection, carcass traits, body weight, dairy cattle, 802
selenate, selenized yeast, liver, glutathione peroxidase, 429
selenium, somatic cell count, dairy ewes, vitamin E, 623
selenized yeast, liver, glutathione peroxidase, selenate, 429
sensory, ice cream, fat replacers, 2094
cheese, Ricotta, shelf-life prediction, 454
sensory analysis, odor, microorganisms, cheese, 1072
sensory properties, ice cream, fat, 32
Cheddar, *Lactobacillus* adjuncts, proteolysis, 1618
consumer acceptance, carbonated yogurt, 1394
separation technologies, isolation of milk, 2238
sheep, callipyge, gene, S221
lactation, gluconeogenesis, ureagenesis, 597
sheep lactation curves, test day, factor analysis, 2212
shelf-life extension, carbon dioxide, milk, 690
shelf-life prediction, sensory, cheese, Ricotta, 454
silage, aerobic deterioration, lactic acid bacteria, 520
enterococci, 2466
near-infrared, in situ, protein degradation, 764

proteolysis, near-infrared, in situ, 756
silages, in situ, protein degradation, near-infrared, 771
simulation, environment, nitrogen, whole farm, 2834
size distribution, ice cream, stabilizers, ice crystals, 1399, 1408
smoothing, cubic splines, genetic effects, lactation curves, 632
sodium, potassium, milk secretion, tight junction, 52
nitrogen, urine volume, 1008
sodium bicarbonate, lactic acidosis, ruminal pH, virginamycin, 1545
sodium chloride, cheese brine, survival, *Listeria monocytogenes*, 1860
sodium glycocholate, bile salt hydrolase, *Lactobacillus acidophilus*, sodium taurocholate, 466
sodium taruocholate deconjugation, cholesterol-binding ability, antimutagenicity, viability, 2536
bile tolerance, 243
sodium glycocholate, bile salt hydrolase, *Lactobacillus acidophilus*, 466
softening, cheese, Cheddar, Mozzarella, 2280
soil management, nutrients, land-use, watershed, S90
somatic cell count, bulk milk, risk factors, management styles, 1655
dairy ewes, genetic parameters, lactation measure, 639
vitamin E, selenium, 623
genetics, mastitis, *Staphylococcus aureus*, 2393
somatic cell production deviance, mastitis, 1045
teat injuries, endoscopy, milk yield, 1482
udder conformation, clinical mastitis, genetic parameters, 2198
somatic cell production deviance, mastitis, somatic cell count, 1045
somatic cell score, heritability, teat end shape, teat diameter, 2017
somatic cells, β-lactam antibiotics, raw milk, microbial inhibitor test, 704
somatotropin, adenosine, adipose lipolysis, glucocortoids, 60
glucose, kinetics, protein, 1274
metabolites, glucose, protein, 982
specific rotation, infrared spectroscopy, molecular compounds of lactose, calorimetry, 2558
spermatozoa, flow cytometry, cells, artificial insemination, S213
heat shock, breed, 2617
stabilizers, ice crystals, size distribution, ice cream, 1399, 1408
stereology, whippping cream, heat treatment, 1635
stage-specific embroyonic antigen-1, embryos, primordial germ cells, bovine, 516
Staphylococcus aureus, antibiotic resistance, risk factors, mastitis, 927
high hydrostatic pressure, 1099
mastitis, 645
pathogens, dry cow therapy, 1221
randomly amplified polymorphic DNA fingerprinting, horn flies, heifer mastitis, 1581
somatic cell count, genetics, mastitis, 2393
tilmicosin, antibiotic, mastitis, 696
Staphylococcus aureus mastitis, prevention, bovine response modifier, Parapox virus, 2101
starch, milk yield, cottonseed, 1296, 1305
protein, oil, grain, S208
rumen fermentation, dairy cattle, grass silage, 143
starch digestion, postabsorptive metabolism, steam-flaking, net energy, 1950
starter, milk fat, probiotics, rennet, 1595
statistical design, feeding trials, S177
stayability, bovine somatotropin, milk, milk components, 2564
steam-flaking, net energy, starch digestion, postabsorptive metabolism, 1950
stereology, whippping cream, heat treatment, stabilizer, 1635
stillbirth, genetic parameter estimation, Baysian analysis, calving ease, 1849
stocking rate, economics, pasture, supplement, 1808
milk, supplements, dairy grazing, 1795
Streptococcus thermophilus, Lactobacillus delbrueckii ssp. *bulgaricus*, reactive oxygen species, lipid peroxidation products, 1629
Streptococcus uberis, intramammary antibiotic, oxytocin, electrical conductivity, 93
Streptococcus uberis mastitis, recombinant bovine somatotropin, milk production, milk composition, 1671
recombinant bovine somatotropin, diapedesis, chemiluminescence, 1465
Streptomyces griseus protease, forages, protein degradation, proteases, 343
fear, milk yield, handling, 720
radiotelemetry, bovine, heart rate, 1179
stress, thermoregulation, animal husbandry, thermal energy, S10
subacute ruminal acidosis, rumenocentesis, dairy cows, ruminal pH, 1170
subclinical ketosis, β-hydroxybutyrate, lactating dairy cows, monensin controlled-release capsule, 333
subclinical mastitis, protein, casein degradation, milk fractions, 2402
suckling, lactation, beef cows, milking, 1489
suckling calves, dry feed, water balance, antidiuretic hormone, 320
summer heat stress, bovine somatotropin, evaporative cooling, 2352
supplement, stocking rate, economics, pasture, 1808

supplemental feeds, chewing index, critical roughage portion, physical structure, 110
supplementary feeds, weight gain, forage, diet, S122
supplements, dairy grazing, stocking rate, milk, 1795
feedlots, compensatory growth, pastures, S136
surface layer protein, *Lactobacillus acidophilus*, lectin, rat colonic mucosa, 2525
survey, dairy cows, feedstuffs, by-products, 445
survival, failure time, mixed model, S147
functional traits, genetic correlations, multitrait, cross-country evaluation, 2054
Listeria monocytogenes, sodium chloride, cheese brine, 1860
survival analysis, genetic evaluation, longevity, 1034
bifidobacteria, probiotic, cheese, 1081
herd life, 2503
sweet buttermilk, ultrafiltration, Mozzarella cheese, 1
synchronized estrus, pregnancy rates, OvSynch, 506
system, dairy herd, model, production, 2819

T

T lymphocyte subpopulations, comparative distribution, mammary gland immunity, bovine mammary gland, 1459
tallow, fiber, particle size, 1532
teaching, ethics, S154
teat diameter, somatic cell score, heritability, teat end shape, 2017
teat injuries, endoscopy, milk yield, somatic cell count, 1482
test day, best prediction, correlation, milk yield, 2205
factor analysis, sheep lactation curves, 2212
test-day milk yield, conception, mastitis, body condition score, 2589
test-day model, daily milk yields, breeding value estimation, 1555
hertitability, correlation, (co)variance function coefficients, 1848
multitrait evaluation, heritability, variance component estimation, 225
variance component estimation, (co)variance function, 226
iteration on data, preconditioned conjugate gradient, 2781
random regressions, genetic parameters, 2798
test interval method, best prediction, lactation yield, 438
texture, ice cream, recrystallization, freezing point, 460
T-helper lymphocytes, interkeukin-2, interleukin-4, mastitis, 1696
thermal energy, stress, thermoregulation, animal husbandry, S10
tight junction, late lactation, milk composition, once daily milking, 1232
sodium, potassium, milk secretion, 52
tilmicosin, antibiotic, mastitis, *Staphylococcus aureus*, 696
lung, mastitis, bovine, 1202
timed insemination, pregnancy rate, heat stress, embryo transfer, 2369
timekill, *Escherichia coli*, lactoferrin, 494
trace elements, dairy cattle reproduction, 1019
trait types, milk production traits, quantitative trait loci, microsatellite markers, 2497
transforming growth factor-β1, *Bifidobacterium bifidum*, B lymphocyte, immunoglobulin, 1869
transition, liver, lipid metabolism, dietary fat, 2259
transition cow, corn, energy, 1765
transvaginal follicular aspiration, energy balance, ova, hormone, 1731
triacylglycerols, fatty acids, fatty liver, dairy cow, 280
tropical grasses, milk production, nutritive value, 2136
tryptophan, cheese flavor, *Lactobacillus*, amino acid catabolism, 2070
type traits, longevity, diseases, yield, 1331

U

udder conformation, clinical mastitis, genetic parameters, somatic cell count, 2198
ultrafiltration, Mozzarella cheese, sweet buttermilk, 1
reduced fat process cheese, buttermilk, 2334
underfeeding, digestion, rice straw, *Bos indicus*, 974
unhomogenized milk composition, near-infrared spectroscopy, 2344
ureagenesis, sheep, lactation, gluconeogenesis, 597
urine, dietary cation-anion difference, ruminants, hypocalcemia, 1325
urine volume, sodium, potassium, nitrogen, 1008
uterus, immunity, estradiol, inflammation, S101

V

vaccine, *Escherichia coli* J5, heifers, mastitis, 939
intramammary immunization, *Escherichia coli* J5, mastitis, 2582
vitamin D, mastitis, 1904
vaginal mucus, pregnancy rate, milk progesterone, 1742
value-added, probiotic foods, cultured dairy products, 2245
variance component estimation, (co)variance function, test-day model, 226
negative binomial, reproduction, generalized linear model, 1834

test-day model, multitrait evaluation, heritability, 225
variance, progeny tests, young sires, pedigree selection, 822
viability, sodium taruocholate deconjugation, cholesterol-binding ability, antimutagenicty, 2536
viable, probiotic, Cheddar cheese, carrier, 1379
virginamycin, sodium bicarbonate, lactic acidosis, ruminal pH, 1545
viscosity, yogurt, lactic acid bacteria, acidification, 673
vitamin A status, vitamin E, neonatal calf, immune function, 2625
vitamin C, plasma, cows, 1831
vitamin D, mastitis, vaccine, 1904
vitamin E, Holstein calves, gossypol, 1240
neonatal calf, immune function, vitamin A status, 2625
selenium, somatic cell count, dairy ewes, 623
vitamin K_2, lactic acid bacteria, menaquinones, 1897
volatilization, dairy manure, nitrogen ammonia, 2421, 2430

W

waste management, drug use, quality assurance, producers, 2224
water balance, antidiuretic hormone, suckling calves, dry feed, 320
fecal moisture content, calves, dry feed, 1960
water quality, livestock manure, nutrient application, regulations, S51
mass nutrient balance, nutrient management, 2164
weight gain, forage, diet, supplementary feeds, S122
wet corn distillers grains, lactating cows, milk composition, 574
whey, phospholipids, composition, 2550
whey fermentation, antihypersensitive properties, bioactive peptides, *Kluyveromyces marxianus*, 486
whey proteins, aggregration, differential scanning calorimetry, denaturation, 1882
calcium, composition, microfiltration, 2063
functionality, caprine, ovine, 265
whippping cream, heat treatment, stabilizer, stereology, 1635
whole farm, simulation, environment, nitrogen, 2834
whole-cell proteins, capillary electrophoresis, polyacrylamide gel electrophoresis, *Lactobacillus delbrueckii*, 870

Y

yeast, prepartum, milk yield, intake, 605
yield accounting, process control, data acquisition, 2039
type traits, longevity, diseases, 1331
yogurt, bifidobacteria, coliform bacteria, 2308
immunity, lactic acid bacteria, cholera toxin, 649
lactic acid bacteria, acidification, viscosity, 673
yogurt-like product, *Lactobacillus helveticus*, antihypertensive peptide, angiotensin I-converting enzyme, 1388
young sires, pedigree selection, variance, progeny tests, 822